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# Asks Bids for 115,545,000 Pounds of Paper

## Joint Congressional Printing Committee Will Open Proposals November 23 For Various Kinds of Paper For Use of the Government Printing Office For Six Months' Period Beginning January 1.

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 28, 1942—The Joint Congressional Committee on Printing will receive bids on November 23 for 115,545,000 pounds of various kinds of paper for the use of the Government Printing Office for a six months period beginning January 1 next. For the past six months the Printing Office used 93,650,000 pounds.

The paper for which they will receive bids include the following:

5,000,000 pounds newsprint paper, 1,500,000 pounds telephone book news, 6,650,000 pounds machine-finish book paper, 200,000 pounds antique book paper, 7,040,000 pounds off-set book paper, 160,000 pounds lightweight machine-finish book paper, 280,000 pounds 50% antique book paper, 30,000 pounds 75% laid antique book paper, 4,700,000 pounds supercalendered book paper, 1,800,000 pounds machine-coated book paper, 1,000,000 pounds coated book paper, 80,000 pounds lithograph paper, 5,000,000 pounds mimeograph paper, 600,000 pounds U S M O safety writing paper, 6,000 pounds U S M O writing paper, 31,300,000 pounds writing paper, 2,630,000 pounds map paper, 3,600,000 pounds manifold paper, 18,965,000 pounds bond paper, 1,254,000 pounds ledger paper, 4,140,000 pounds index paper, 1,040,000 pounds cover paper, 800,000 pounds manila paper, 1,400,000 pounds kraft paper, 2,000,000 sheets gummed paper, 440,000 pounds blotting paper, 50,000 pounds high finish red sulphite, 550,000 pounds manila tag board, 1,620,000 pounds calendered tag board, 100,000 pounds manila cardboard, 480,000 sheets railroad board, 870,000 pounds bristol board, 10,000,000 pounds postal card bristol, 70,000 sheets pressboard, 1,500,000 pounds news board, 1,170,000 pounds binder's board.

In cases where more than 1,000 reams are called for, proposals will be received for 1,000 reams or more.

### Specifications Committee Report

The Committee on Paper Specifications has made the following report to the Joint Congressional Committee on Printing: Ansil Wold is Chairman of the Specifications Committee.

The Committee on Paper Specifications respectfully submits its Forty-Fifth Report and the accompanying recommended schedule for paper for the public printing and binding and blank paper for the use of the Government departments and establishments in the District of Columbia for the term of 6 months beginning January 1, 1943.

A new paragraph No. 26 defining the brightness requirement as specified by the War Production Board was added to the Instruction.

Old paragraphs Nos. 26, 27, 28, 29, 30, and 31 were renumbered 27, 28, 29, 30, 31, and 32 respectively.

Section (*c*) 1 of paragraph 46 of the Instructions was modified to include the "C" stain now extensively used in fiber analysis by the Paper Industry.

In view of the revised Limitation Order L-120 of the War Production Board eliminating the requirement for a minimum ash content, the Committee deemed it advisable to eliminate the ash content of book papers except offset book and to reduce the ash content of chemical wood and rag content writing, map, manifold, bond, ledger and index papers to their maximum values as of January 1, 1942.

Wherever the maximum requirements of 10 percent ash were reduced to their former values, the bursting strength and folding endurance values of writing, map, manifold, bond, ledger and index papers were increased 25 and 40 percent respectively to their former minimum values as of January 1, 1942.

The term "sulphite," as used to designate all sulphite papers, was changed to "chemical wood" in order to conform more accurately with the designation used by the paper industry for this class of papers.

The stock requirement for ground wood mimeograph, lot 44, was modified in order that the bleached pulp content be "not less than 30 percent."

Lots 54, 57, and 60 covering substance 26 sulphite writing paper were eliminated to conform with limitation order L-120 of the War Production Board.

The bursting strength of Chemical Wood (sulphite) manifold, lots 71 to 73, was increased from 8 to 10.

The bursting strength of 50 percent manifold, lots 75 to 78, was increased from 8 to 11 points on substance 14 and from 11 to 15 points on substance 18.

*(Continued on page 10)*

# Superintendents Honor Veterans At Meeting

## Banquet Attended By 150 At One-Day Fall Meeting — M. M. Whitman and W. L. Edmonds Presented With Life Memberships — Care of Rubber Rolls Is Discussed — New Officers Announced.

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., October 26, 1942—Life memberships were presented to two veterans of the paper industry during the fall meeting of the Northwest division of the American Pulp and Paper Mill Superintendents Association at Wausau, Wis., Saturday, October 17. The session was curtailed to one day only, and there were intimations that further meetings might be deferred until after the war.

There was an attendance of 150 at the evening banquet at Hotel Wausau, where M. M. Whitman, pulp mill superintendent of the Marathon Paper Mills Company, Rothschild, Wis., and W. L. Edmonds, who retired several years ago as manager of the Wausau Paper Mills Company, Brokaw, Wis., were honored for more than fifty years of service to the industry. D. C. Everest, president and general manager of Marathon and former president of the American Paper and Pulp Manufacturers association, presented the life membership to Mr. Whitman. Mr. Edmonds received his from R. H. Kelly, general superintendent of Marathon, a former president of the national association.

Grover Keeth of the Marathon company, national president of the superintendents, served as toastmaster. Motion pictures of the battle at Wake Island and of life in the navy were shown by Shelby Pitts, publicity department of the navy, Chicago.

### Care of Rubber Rolls Is Discussed

During the morning business meeting, discussion was centered principally on the care of rubber rolls to make them last "for the duration." R. J. Kennedy of the Rhinelander Paper Company, Rhinelander, Wis., was the discussion leader. More frequent grinding of suction rolls to lengthen their life was suggested, because defects would then be removed before they caused trouble. Caution also was urged against abnormal acceleration of speed. The symposium also dealt with other problems, especially in the conservation of machinery and materials.

### Patents Granted on Wadding Re-Expanders

C. A. Fourness of Appleton, Wis., and R. A. Moravek, Neenah, Wis., have been granted a patent for creped wadding re-expanders. They have assigned it to the Paper Patents Company, Neenah, Wis. Both are associated with Kimberly-Clark Corporation.

### Announces Election of Officers

John V. Zieman of the Marinette Paper Company, Marinette, Wis., was elected chairman of the division to succeed Walter Johnson of the Hoberg Paper Mills, Inc., Green Bay, Wis. Henry P. Baldwin of the Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis., was elected vice-chairman. A successor will be appointed to J. B. Roskams, Hoberg Mills, who retires as secretary-treasurer.

Recreation was enjoyed Saturday afternoon, including bowling and golf, and a luncheon and bridge were provided for the women guests.

R. J. Tourangeau, superintendent of the Wausau Paper Mills Company, served as general chairman of arrangements, and members of his committee were Harold A. Skinner, Marathon mills, and E. W. Peterson, Mosinee Paper Mills Company, Mosinee, Wis.

### Patents Granted To Paper Men

A new method of scouring wool has resulted in the granting of a patent to Ben W. Rowland and Douglas Fronmuller of the Institute of Paper Chemistry, Appleton, Wis. The method comprises treating wool with an aqueous aliphatic sulfate detergent bath maintained at a temperature of about 140 to 150 degrees F. and a pH of about four to six, washing the treated wool in warm water and then drying so it contains at least about five per cent moisture. The patent has been assigned to the Institute.

M. L. Downs of Appleton, Wis., and M. G. Schmitt, Kaukauna, Wis., have been granted a patent on testing devices for greaseproof paper.

## Form Puget Sound Paper Committee

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 28, 1942—Formation of a Puget Sound Pulp and Paper Industry Advisory Committee has been announced by WPB. A. G. Wakeman, Chief of the Pulp and Paper Industry, is the Government Presiding Officer.

Committee members are: R. W. Wolf, Weyerhouser Timber Company, Longview, Washington; J. C. Rayes, Everett Pulp and Paper, Inc., San Francisco, Cal.; Roy Ferguson, St. Regis Paper Company, New York, N. Y.; L. P. Turcette, Puget Sound Pulp and Timber Company, Bellingham, Wash.; J. D. Zellerbach, Crown Zellerbach Corporation, San Francisco, Cal.; M. H. Houston, Rayonier, Inc., San Francisco, Cal.; W. S. Campbell, Anacortes Pulp Company, Anacortes, Wash.; Don Leslie, Grays Harbor Pulp and Paper Company, San Francisco, Cal.; and Walter Starr, Soundview Pulp Company, San Francisco, Cal.

## Waste Paper for Airfield Runways

Waste paper is being used in England for making expansion joints for concrete runways of airfields. The points are inserted between the concrete blocks so as to allow for expansion and contraction of the cement surface under different climatic conditions, and thus prevent cracking. It is said that one of the companies producing a bituminous composition of this kind for purpose noted, is using about 1300 tons of waste paper annually in such production.

# U. S. and Canadian Unification Is Expected

## All-Embracing Plan Under Consideration Would Coordinate All Newsprint Mills On Continental Basis — Labor and Power Shortages Reported Serious In Some Areas — Other Industrial News.

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., October 26, 1942—As viewed here, it is now regarded as highly probable that the newsprint industry of Canada and the United States will shortly be unified on a continental basis—the first time such an all-embracive move has been attempted for any industry. That is the interpretation given to the plans now under way in the United States for extension to U. S. mills of the Canadian plan for coordination of operating activities in the industry. Discussing this prospect, the Financial Times, of Montreal, says:

"Ordinarily, in so competitive a business as newsprint, the obstacles to cooperative production and sales efforts would seem insuperable. But conditions are recognized as unusual. Canadian newsprint mills have proved tonnage pooling was feasible, through the coordination achieved under the Newsprint Association of Canada set-up—so long as government authorities are prepared to back up such efforts actively. The war has brought even the privately-owned mills, formerly outside the coordination plan, into the unified set-up."

One factor held favorable to agreement is that a few large companies more or less dominate production in the United States, and that one of these companies, the International Paper Company, has for some time past coordinated its activities with other mills in this country.

### Labor and Power Shortages Serious

The two developments which have brought about closer production coordination in Canada are shortages of hydro-electric power in certain districts and shortages of manpower, the latter cutting particularly into lumber supplies. Power is now being conserved in central Canada, where hydro-electric shortage, due to expanding war plants, is most acute, by the staggering of working time in the mills and by shifting production activities to mills outside the central Canada grid hook-up. Under supervision of the government, profits are being pooled, so that the country can get maximum use of manpower and hydro-electric power without any individual mill suffering unduly. Extension of this system to the United States would mean less production at points where the manpower and lumber supply system is more critical.

The developments envisaged will not be without advantages to the newsprint industry. For instance, newsprint manufacturers have been much embarrassed by the refusal of the United States Government to permit price adjustments to compensate producers for increase in transportation costs. As an example, a Canadian mill serving certain customers in the United States may have based its price on cheap water transport, and be forced instead to use the costly, long rail haul. A continental coordination program would save the mills much in transport costs and at the same time ease the strain on transport facilities.

Both the Canadian and United States Governments are said to have been favorably impressed by the initiative of the newsprint industries in working out these co-operative features, and are said to be planning no drastic curb on newsprint production other than that worked out with newsprint producers.

### Power Reserves Replenished

Heavy rainfalls in Eastern Ontario, Quebec and the Maritime Provinces have brought about a marked replenishment of water power reserves, and consequently hydro-electric companies in these areas face winter conditions with a favorable outlook for the maintenance of power production. At the approach of the fall season imminent drought conditions prevailed, but the situation is now reversed. The Monthly Water Resources Review, for September, prepared by the U. S. Geological Survey of the Department of the Interior in collaboration with the Water and Power Bureau of the Dominion of Canada, says that ground water conditions are reported generally favorable throughout the United States. The outlook for surface water supplies is good to excellent in both the United States and Canada except in the Pacific Northwest, Arizona, New England, and in a fringe along the Atlantic seaboard from Southern New Jersey through North Carolina and in New Brunswick and Quebec.

Marked improvement occurred in stream flow throughout Easetrn Ontario, Quebec and Nova Scotia where drought conditions were becoming imminent.

In New Brunswick, Northwestern Quebec and on Vancouver Island conditions were sub-normal. Elsewhere in the Dominion conditions were either close to or above normal. In most power-producing areas substantial precipitation provided replenishment of storage, thus maintaining or restoring reserves of water for the approaching winter period when heavy withdrawals from such reserves are required. A notable feature of the month was the abrupt end of near drought conditions which had continued in Nova Scotia throughout the summer season.

An example of the demand which war industries are making on hydro-electric power producers is afforded by a statement issued by the Shawinigan Water and Power Company, whose plants are on the St. Maurice River, in the centre of Quebec newsprint industry and of many war industries. The company has been operating at record levels, and for the nine-month period up to the end of September its gross revenue was up by approximately 26 per cent, with receipts at $18,095,752, as compared with $14,380,-855 in the corresponding period of last year. The nine-month requirement for income and profit taxes is estimated at $3,700 000 as compared with $1.350,-000 a year ago. This would indicate net profit at around $1,985,000, equal to 91 cents a common share, as compared with 82 cents a year ago and 75 cents two years ago. Of the estimated total tax figure of $3,700,000, the refundable portion would be something like $350,000, equal to approximately 16c per common share.

# Paper Buying Wave Is Reported In Midwest

## Repeated Talk of Paper Scarcity Due To Production Curtailment Is Viewed As Prime Factor In Current Activity — Salesmen To Discuss Business Problems In Future Luncheons — Other News.

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., October 26, 1942—The Chicago area is enjoying a "bull market" but paper men are not overly happy about it. Buyers of paper, frankly herded into an extreme buying wave by threats of paper production curtailment, are swamping the local market and adding heavily to commitments which began to swell over one month ago. It is reported that no lines nor grades are immune from the buying wave which has spread through krafts, sulphites, ground woods, bonds and ledgers and books and covers to the specialties in general. The "wave" is termed "unhealthy" by local paper executives who are worried about the effects of the curtailment program which is expected daily. Even while prices are crowding the ceilings and while salesmen are hard pressed to fill orders, the market sees genuine disruption of labor, production and other factors when curtailment comes in.

### Salesmen Resort To Closed Meetings

The western division of the Salesmens Association of the Paper Industry has decided that its Monday noon meetings are too important to bother with the weekly football Wailing Wall luncheons which formerly attracted the salesmen after the luncheon was over. From now on members are going to forego the lighter entertainment and concentrate on their own problems. Evidence of the seriousness of their problems came last Monday when the entire luncheon period was given over to the proposed Government curtailment program. The news that the order is impending has created a very bullish effect here and on all lines. But the even more grave questions concerning what is to happen after the Order goes into effect are creating grave consideration here. Local executives representing mill connections are fearful of the effect of curtailment, of the possible disruption of the labor market; of the loss of labor to other industries when mills are either closed down or put on a three or four day basis and of the ultimate results when the mill thus affected tries—"some day"—to return to normalcy.

### Tribune Offers Pulp Waste For Rubber

The Chicago Tribune has offered the facilities of its paper and pulp mills for production of tire materials. Rubber Director W. M. Jeffers was in Chicago this week and received the offer direct from R. R. McCormick, publisher of the newspaper. Mr. Jeffers said his technicians would be on hand to survey methods and to measure results when the Ontario Paper Company mills at Thorold, Canada, begin their output of the vital war material and promised that his office will explore and exploit all sources for synthetic rubber.

The paper pulp mill process consists of distilling alcohol from a waste material that is now a disposal problem. An advantage cited for the pulp mills process is that it conserves fuel and foodstuffs while still increasing America's capacity to make rubber. The capacity of all of the paper mills of Canada and the United States to produce alcohol has been reckoned theoretically as adequate for 900,000 tons of rubber annually. In practical application it has been calculated that 45,000 tons a year could be obtained easily from this source.

Many of the mills, said the Tribune spokesmen, are isolated from other industries, remote from labor shortage areas.

### Paper Employment Down in Midwest

The employment problem, rapidly overshadowing all others as the War Man power Commission goes into full swing, is having its effect on this State. Latest figures from the Illinois Department of Labor show lower employment indexes for both the paper goods and printing groups—a fact traced to both slower business and lack of available employment. There are 288 establishments in the paper goods, printing and publishing group. A total of 37,224 employees reported total weekly payrolls of $1,295,285. The 64 manufacturers of paper boxes, bags and tubes showed a 1.1% decline over July 15 in the August 15 report though payrolls increased 3%. All other paper goods showed a 2.7% decline in employment and a 0.3% decline in payrolls. Average hourly earnings were 73 cents for the former and 71 cents for the latter group.

The Department's report also shows no fatalities in August and only 69 accidents ascribed to "all causes." The majority of these were caused by "handling objects" or by "machinery."

### Plan Poster Exhibit

The Employers Association of Chicago is preparing an all-Chicago exhibit of posters, slogans and production charts used in Illinois plants to increase war production. A letter has been sent out by the Association asking not only for original exhibits for display but also inquiring as to whether or not Chicago's industry would be interested in attending an exhibit where such plans are shown. The Association feels that such an effort will not only speed up the War effort in this locality but also help greatly in developing that type of appeal to which most workers are likely to respond.

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## ASKS PAPER BIDS

*(Continued from page 7)*

The bursting strength of 50 percent glazed manifold, lot 85, was increased from 9 to 12 points.

*Chemical Wood (Sulphite) Bond.*—Two new lot numbers 101 and 103 were added to provide substance 26 paper.

This schedule embraces 137 lots, which is 1 less than the preceding schedule. The quantity estimated for the term of 6 months beginning January 1, 1943, is approximately 115,545,000 pounds, as compared with 93,650,000 pounds for the previous contract period of 6 months.

# Less Newsprint To Be Available Next Year

## Orders Issued By Power Controller and Selective Service Head In Canada Are Interpreted To Indicate Much Lower Production In 1943 — Power Order Affects 36 Paper Mills — Other Late News.

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., October 26, 1942—Figures for production of newsprint in Canada and shipments to the United States continue to indicate that the U. S. publishers are still accumulating stocks. The advance in shipments to U. S. publishers was, therefore, due to a further increase in inventories. Stocks now on hand appear to represent about two and a half months' supply.

### Determined to Avoid Former Experience

The fact that United States publishers were caught short during the last war and had to pay as high as $112 a ton for newsprint is perhaps the chief reason why they are apparently determined not to take any chances this time. Nothwithstanding the fact that the price of newsprint is pegged at $50 a ton, the possibilities inherent in the present tight labor situation, the increasing demands for electrical power with the consequent curtailment of its use and diversion from the non-essential industries to the more important war industries, together with the submarine menace and its effects on transportation facilities, offer sufficient justification for the accumulation of stocks of newsprint in the U. S. Moreover, this can be done more advantageously now than it could be done before. Normally, it costs about 50 cents a ton per month to store newsprint and under ordinary circumstances does not pay. But with the price pegged at $50 a ton, the publisher can readily weigh the extra costs against the advantage of being assured of a continuous and adequate supply.

Without knowing present-day storage costs in the U. S., it is obvious that even at 50 cents a ton there is a definite limit to the amount in excess of monthly requirements likely to be carried. Present indications are that some newsprint will have to be drawn from present stocks in the hands of U. S. publishers during the next two months, even though North American mills continue to ship nearly 50,000 tons a month more than they produce.

### Impossible to Forecast Production

It is impossible to forecast at the present time how much newsprint Canadian mills will be able to produce under the prevailing electrical power diversion plan. The paper industry in Canada has already given up 140,000 h.p.

### Less Newsprint in 1943 Expected

Orders issued by the Power Controller, the National Selective Service and the Newsprint Administrator to the Canadian newsprint mills indicate clearly that there will be less newsprint available in 1943 than there has been this year. If the Canadian newsprint industry is not called upon to make any further radical change in its operations schedules, there is no reason why U. S. publishers, with their present reserve stocks, should not be able to get along without suffering unduly from tightness in paper supply.

It will probably not be known until near the end of the year just what sacrifices may be necessary. By that time the Canadian newsprint industry should know if the Power Controller plans to make any further demands upon it. That is not just because the normal peak electrical production is reached with the longest nights, but because great new aluminum plants and other war industries should by that time be in production. More war industries continue to be established and others are continually enlarging, so that even when the days begin to get longer and the electrical power production peak should begin to go down, there is no assurance that further curtailment of power use will not be necessary.

All this seems to indicate that not later than the end of the year the American newspaper publisher will have to determine his policy for the year to come. He must decide whether or not be can continue his present rate of consumption. He can't continue to accumulate reserve stocks and he can't be sure what supplies will be available. Yet it would not seem sensible to drift along very far into the new year before making a decision as to how much newsprint was going to be used. To neglect to conserve the use of paper until the year was well advanced might easily mean that even an unusual reserve would be used up before adequate supplies could be obtained.

### Thirty-Six Paper Companies Affected

The latest order issued by the Power Controller in coordination with the Wartime Prices and Trade Board, affects 36 paper companies in Ontario and Quebec. The Ontario mills affected are: Beaver Wood Fibre Company, Ltd., Thorold; Strathcona Paper, Napanee; Garden City Paper Mills Company, Ltd., St. Catharines; Alliance Paper Mills, Ltd., Georgetown; Canada Glazed Papers, Toronto; Gair Company of Canada, Ltd., York Paper Mills Div.; Gair Company of Canada, Ltd., Frankford; Gair Company of Canada, Ltd., Campbellford; Hinde & Dauch Paper Company, Ltd., Trenton; Hinde & Dauch Company, Toronto; Alliance Paper Mills, Ltd., Merriton; Provincial Paper Ltd., Thorold; Interlake Tissue Mills Company, Ltd., Thorold; J. R. Booth, Ltd., Ottawa; Brantford Felt and Paper Company, Ltd., Thorold; Provincial Paper, Ltd., Georgetown; Sonoco Products Company of Canada, Ltd., Brantford; Howard Smith Paper Mills, Cornwall (A); Howard Smith Paper Mills, Cornwall (B); Champion Paper Mills, Ltd., Toronto; Don Valley Paper Company, Ltd., Toronto; and Provincial Paper Mills, Mille Roches.

### Included in the Ontario List

Included in the Ontario list, because they obtain power from Ontario sources, are also the following Quebec companies: E. B. Eddy Co., Hull; J. C. Wilson, Lachute; and Rolland Paper Company, Ltd., St. Jerome and Mont Rolland.

# Government Paper Awards

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 28, 1942—The Government Printing Office announced the following awards for paper: Cauthorne Paper Company will furnish 42,000 pounds of 25% rag white bond paper @ $10.91 per cwt.; Marquette Paper Corporation will furnish 82,728 pounds of red jute tag board at 12.27 cents per pound; Marquette Paper Corporation will furnish 73,200 pounds of white supercalendered book paper at 5.54 cents per pound; and Marquette Paper Corporation will also furnish 91,500 pounds of white supercalendered book paper at 5.54 cents per pound.

Cauthorne Paper Company will furnish 72,700 pounds of 25% rag yellow bond paper at 12.37 cents per pound; and also 1,000 pounds of red stereotype molding paper at 14.5 cents per pound; Crocker, Burbank Papers, Inc., will furnish 10,780 pounds of aerochart fluorescent litho-finish paper for $3,773.00 (est.); and Barton, Duer & Koch Paper Company will furnish 2,000 sheets of worthy hand and arrow paper at $33.00 per thousand.

Marquette Paper Corporation will furnish 299,506 pounds of white sulphite index paper at 6.23 cents per pound; and also 195,115 pounds of yellow sulphite writing paper at 6.69 cents per pound.

R. P. Andrews Paper Company will furnish 129,924 pounds of white sulphite writing paper at 5.72 cents per pound; and 61,131 pounds of white sulphite writing paper at 5.72 cents per pound; Bulkley, Dunton & Co. will furnish 390,000 pounds of 25% rag white bond paper at 10.39 cents per pound; and Marquette Paper Corporation will furnish 45,000 pounds of white gummed paper at 13.50 cents per pound.

Barton, Duer & Koch will furnish 70,000 pounds of 50% rag white index paper at 9.84 cents per cwt.; Eastern Corporation will furnish 320,000 pounds of white sulphite writing paper at 5.27 cents per pound; and Eastern Corporation will also furnish 40,750 pounds of green sulphite writing paper at 5.87 cents per pound.

Eastern Corporation will furnish 200,000 pounds of white sulphite writing paper at 4.77 cents per pound; and 500,000 pounds of white sulphite writing paper at 4.77 cents per pound; and 80,000 pounds of yellow sulphite writing paper at 5.77 cents per pound; and 153,000 pounds of yellow sulphite writing paper at 5.77 cents per pound.

Cauthorne Paper Company will furnish 32,508 pounds of buff sulphite index paper at 6.98 cents per pond; Bulkley, Dunton & Co. will furnish 9,400 pounds of 25% rag bond paper (white) at $11.65 per cwt.; and The Mudge Paper Company will furnish 194,000 pounds of 50% rag white index paper at 10.02 cents per pound.

The Barton, Duer & Koch Paper Company will furnish 460 pounds of 100% rag white manifold paper at $17.60; and also 589 pounds of 100% rag white manifold paper at $22.20 per thousand; The Whitaker Paper Company will furnish 324,310 pounds of white sulphite writing paper at 5.61 cents per pound; and Cauthorne Paper Company will furnish 9,650 pounds of 25% rag white ledger paper at $11.33 per cwt. and also Cauthorne will furnish 7,800 pounds of 25% rag white ledger paper at $11.33 per cwt.

The Wetna Paper Company will furnish 27,930 pounds of Maxwell offset paper at $7.66 per cwt.; R. P. Andrews Paper Company will furnish 10,000 pounds of rope manila paper at 19.5 per pound; and also 300,000 pounds of telephone book newspaper at 4.283 cents per pound; and 40,000 pounds of telephone book newspaper at 4.283 cents per pound.

Walker-Goulard Plehn Company will furnish 4,800 sheets of white tissue paper at $2.00 per ream; R. P. Andrews Company will furnish 10,000 sheets of Whiting's woven linen azure note paper at $25.85 per thousand; and 6,000 sheets of Whiting's woven linen envelopes at $17.70 per thousand.

R. P. Andrews Paper Company will furnish 20,000 pounds of oiled manila Tympan Paper at 8.25 cents per pound; Bulkley, Dunton & Co. will furnish 35,900 pounds of 25% rag white bond paper at 10.94 cents; and Paper Corporation of US will furnish 21,555 pounds of 50% rag yellow index paper at 10.44 cents per pound.

Import Paper Company will furnish 162,500 pounds of white sulphite manifold paper at $7.92 per cwt.; Marquette Paper Corporation will furnish 10,000 pounds of 42" rolls of white machine finish book paper and 104,000 pounds of 56" white machine finish book paper for $6,156.00; The Mudge Paper Company will furnish 12,000 pounds of 50% rag pink manifold paper at 23 cents per pound; and 200,000 pounds of white sulphite writing paper will be furnished by the North American Pulp and Paper Corporation at 5.25 cents per pound.

## Nypenn Contest Closes Dec. 7

Special attention is called by the New York & Pennsylvania Company, New York, to the fact that December 7 is the closing date for the Nypen Patriotic Slogan Contest for printers and lithographers. Final entries in the contest must be postmarked prior to midnight on that date if they are to be accepted by the contest board of awards.

"Although the Nypen Contest is drawing to a close," says Eustis Paine, president of the New York & Pennsylvania Company," the part of the graphic arts in the nation's struggle for victory has only just begun. The Nypen Contest was launched to show the graphic arts one way in which printing could contribute directly to the war effort. There are many others, and I am certain that the industry as a whole needs no prize incentive to stimulate it to action."

Hundreds of printers and lithographers throughout the country undoubtedly have in their files specimen material which they have produced that is eligible for the contest. Any piece of commercial printing, whether it be a letterhead, a poster, a direct mail piece, a blotter, a menu or what have you, may be entered provided it carries a war bond cut, a Red Cross appeal, a scrap drive message or some other patriotic message or slogan.

Eight War Bonds prizes are being awarded by the company, four in the letterpress field and four in the lithographic field. Prizes total $1,000. In addition, every entrant will receive a Certificate of Patriotic Service specially designed for the contest by Bruce Rogers.

# WPB Closes Three Puget Sound Pulp Mills

WASHINGTON, October 24, 1942—The War Production Board ordered today, according to a press dispatch, the shutdown of three big pulp mills on Puget Sound and prohibited all shipments of pulp from the Pacific Coast to the East except the types used for explosives and rayon. Both actions take effect November 1.

No domestic paper pulp of any grade may move East in November, the W. P. B. said, and "there is every prospect that west coast shipments may be eliminated for the duration, with the exception of deliveries for essential war purposes."

The paper-manufacturing industry, which has obtained a considerable part of its supply from Western areas now afflicted by shortages of man power and pulp loss, was advised by the W. P. B. that it must make "considerable readjustments in its use of wood pulp."

About 1,100 men will be released for war industry by the shutdown of the three pulp mills. These are the Tacoma, Wash., mill of the St. Regis Paper Company; the Anacortes, Wash., mill of the Scott Paper Company, and the Tacoma mill of Rayonier, Inc. All three are producers of paper pulp normally shipped East.

The Puget Sound action is in effect a concentration of production in the area. The action "may be extended later to other areas in which critical shortages develop," the W. P. B.'s announcement said.

"It was decided that definite steps must be taken to make sure that the shortage of man power and pulp logs would not imperil the production of high alpha and desolving pulps going into essential nitrating, rayon and photographic uses," it was stated. Participating in the decision were the War Man Power Commission, other Federal agencies and representatives of the Puget Sound mills.

In November and December the only pulp production permitted along the entire Pacific Coast will be that for high alpha and desolving pulp, pulps for lend-lease and export requirements, and paper pulp only for the production of paper consumed in the Far Western states.

The prohibition on Eastern shipments was accomplished by tightening the November allocations of wood pulp to mills. Since many non-integrated paper mills are largely dependent on coast pulp producers, steps were taken to allocate the supply of Eastern, lake states and Canadian pulps in such a way as to replace part of the shipments now cut off.

"This will result in a general reduction of pulp inventories in the hands of non-integrated (those which do not operate their own pulp-producing plants) pulp consumers," the W. P. B. said.

## WPB Clarifies Limitation Order

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 28, 1942—Provisions for standardizing and simplifying the manufacture of 5 classes of paper, previously embodied in the first 5 schedules to Limitation Order L-120, were revised by the issuance of general amendments to those schedules.

The revised schedules, numbered one to five inclusive, relate to the manufacture of book paper for commercial printing, book paper for book publishing, fine writing paper, envelope and tablet paper.

The amendments announced by the Director General for Operations clarify the schedules as originally written and remove ambiguities and discriminations which developed in their application.

The specifications set forth in the various schedules affect primarily grades, colors, sizes and weights of paper. They are technical in nature, and are designed to accomplish the simple purpose of producing the necessary amount of paper with minimum demand on pulp and other materials and facilities. They establish simplifications which reduce the number of grades from 82 to 52, and the number of items in various sizes, colors and weights from 10,000 to 2,500.

Such papers as newsprint, publications stock (except books), wrapping papers, paperboard and many types of specialty and industrial paper are not affected by these schedules.

A standardization and simplification program was put into effect by the paper industry on a voluntary basis in January, 1942. It was followed by the mandatory program, enforced by Limitation Order L-120, and the five schedules attached thereto were issued July 7, 1942.

While both the voluntary and mandatory programs have been well observed by the industry, there remained certain doubts in the minds of manufacturers, distributors, and consumers regarding what kinds, types and grades of paper should be manufactured. The exhaustive specifications in the five schedules, as amended, are issued to clarify the restrictions.

## Seek Substitutes for Containers

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 28, 1942—Urgent appeal has been issued to the paper industry to concentrate all their research facilities on the development of substitutes for containers because of a shortage in critical materials necessary for their manufacture, according to the Containers Branch of WPB.

While many substitutes have been developed and already are in use, the proportion of containers still made of critical materials is considerable in excess of what it should be in the light of the present military demands for those materials, it was pointed out.

The Branch emphasized that the container industry and those who use containers for packaging their products should not reply on WPB for development of substitutes. Responsibility for developing such substitutes rests largely with the individual manufacturers, it was stated, although the WPB is prepared to offer whatever assistance and guidance its facilities permit.

Substitutes should be designed to use a minimum of raw materials, even though the materials required are not at present in the critical category.

Manufacturers and packers now using containers made of critical materials should not rely on a continued supply of such containers, the Branch stated. There is no assurance that such containers will continue to be available just because satisfactory substitutes have not been developed yet, it was pointed out.

## Discuss Newsprint Curtailment

WASHINGTON, D. C., October 27, 1942—Curtailment of newsprint, copper, zinc, printing ink and other materials necessary to newspaper publication was discussed today with officials of the War Production Board by its newspaper advisory committee after the twenty-four newspaper publishers belonging to it had been told by Donald M. Nelson that a curtailment of newspaper operations was unavoidable.

Today's discussion brought out that it would be left largely to the newspapers themselves to work out the problem of allocating restricted supplies of newsprint, but when it comes to rationing paper for the production of magazines, booklets, posters and sundry publications, the board itself may decide which are essential and which are not.

How the first restriction of supplies is to be made is still undecided and was a subject for long discussion at today's meeting. It seems probable that the production of newsprint will first be frozen at the source, then curtailed. An alternative method is rationing to consumers. Both may be necessary.

The meeting began with a talk by Mr. Nelson, who said that newspapers, like other industries, must make sacrifices to save manpower and materials for winning the war. There must be, he said, reductions in use of newsprint, copper, zinc, printing inks, steel stitching and bundling wire and several scarce chemicals used in printing.

However, said the WPB chairman, "the printed word is most important in a democracy in time of war" and the continuance of newspaper publication was essential. The newspapers, he realized, were already making sacrifices, but he said he felt sure that if the facts were presented properly the publishers would not hesitate to cooperate further with the WPB. It was not "a case of government against industry, but rather a case where government and industry are sitting on the same side of the table to cooperate in winning the war," he continued.

A. G. Wakeman, chief of the pulp and paper branch of the WPB, then reviewed the over-all paper situation in Canada and the United States from the standpoint of power, labor and transportation and the use of critical metals. He said curtailment was inevitable.

George C. Heikes, chief of the zinc branch of the board, explained the 50% curtailment order which is already in effect for zinc. Zinc is so scarce that the whole question of allocating it is now before the WPB's requirements committee for review. The newspaper industry will know soon whether it will be able to get more than the 50% quota if it adopts such expedients as making use of lower grades.

Lawrence Brown of the Chemical branch discussed the supply of nitric acid, which is used for etching zinc newspaper plates and for photographic film. He indicated that he might be able to increase the supply, which has been on a 50% curtailment basis.

A discussion by other WPB officials indicated that there probably would be enough of the steel stitching wire used for binding newspaper magazine supplements, and a reduced quantity of the steel tape used in bundling for delivery.

Recommendations by a special committee of the American Newspaper Publishers Association to eliminate uneconomic practices in the newspaper industry were discussed.

## Pulp Mill Deferred Until After War

First logs from the great stand of fir, hemlock and cedar on Vancouver Island, B. C., held by Canadian Forest Products Ltd., are to hit the salt water almost immediately, and will be towed to Vancouver. The company plans to operate on the basis of six million feet a month during the winter and to double this output next year.

Fred Brown, manager of Canadian Forest Products at Vancouver, who, with Fred Kirkland for years operated the B & K Logging Company, and which was involved in the record timber deal of last spring when the Canadian Forest Products Company was formed, state work on the Island stand is progressing, but shortage of labor and material is a terrible problem.

"Everything is contingent on labor and supplies," he said. "We have 260 men working and we should have 350. We have equipment and roads and the timber is now ready, but you can't move it without men." Mr. Brown said the Selective Service Board has been of little help to the logging industry thus far. He also states the recent death of Ossian Anderson, head of the Puget Sound Timber Company, which is interested in Canadian Forest Products, will make no change in the policy of the company. Fred G. Stevenot of San Francisco, new president, has just returned from a visit to the Vancouver office. He plans to be back in Vancouver late in November and will then visit the Vancouver Island properties.

Commenting on possibilities of a pulp plant and a plywood plant, mentioned in connection with the company when first formed, Mr. Brown said there was no doubt a plywood plant would be built in the Greater Vancouver area, but not until after the war. Lack of priorities and shortage of labor would preclude possibility of such an undertaking now.

The same lack of priorities and labor holds up establishment of a pulp plant, Mr. Brown said. This plant would more than likely be constructed at, or near Englewood on Vancouver Island to handle pulp-making timber from the big stand. It is regarded as a "must" project by the company, but not until after the war.

It is estimated that the timber holdings of Canadian Forest Products are sufficient for 75 to 100 years. Developing it is a tremendous job, and next spring should see the operation well under way, provided the labor supply and materials are available. Operations at the property are under Fred Kirkland.

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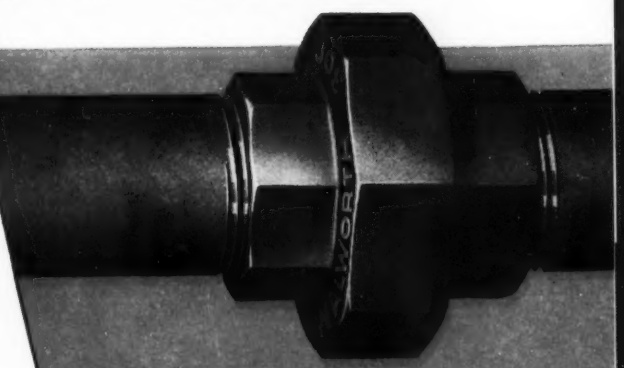
## New York Leads in Paper Output

ALBANY, N. Y., October 26, 1942—New York still leads all States in paper manufacture, the State Division of Commerce said today, but has dropped from first to sixth place in pulp production in the last twenty-five years. The division reported a 1,600,000-ton production of paper for 1941 in the first of a series of surveys on the State's industrial development.

Approximately two-thirds of pulpwood used in New York paper mills is purchased outside the State, due to decline of local forest resources, the report stated. The leading product has changed from newsprint, manufactured from woodpulp, to paperboard manufactured from waste paper.

# *Simplify* YOUR PIPE RUNS WITH WALWORTH UNIONS



Accurate machining and ground joint seats which eliminate the need for a gasket simplify the job of quickly making tight, strong assemblies with Walworth 300 pound malleable unions. Moreover, corresponding parts of each type of union are interchangeable. They are recommended for steam, oil, water, gas and air lines. Their rugged construction makes them suitable for 300 pounds steam at 550° F.; 600 pounds cold oil, water or gas non-shock.

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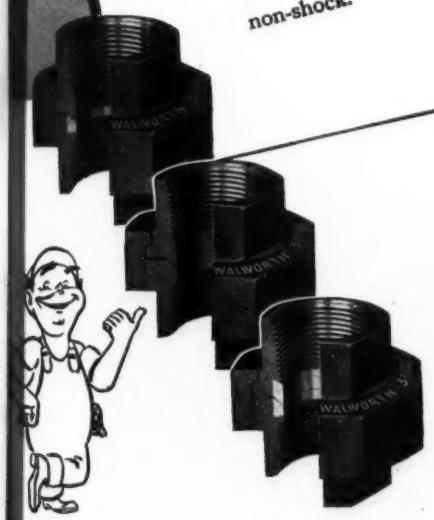
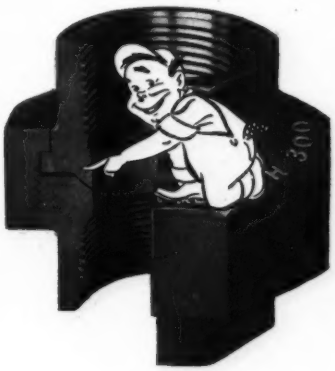
This advertisement continues Walworth's effort to help users of valves, fittings, flanges, and pipe, obtain the maximum benefits from Walworth products, but we would like you to remember that *Walworth has continuously manufactured valves and fittings for 100 years.*




SEAT CONSTRUCTION of these Walworth Unions is of three types: Fig. 7716 bronze to iron seat, Fig. 7227 all iron seat, Fig. 7717 bronze to bronze seat.

BRONZE SEAT UNIONS have non-corrosive seating surfaces. The bronze rings are forced into the retaining grooves under high pressure and will not loosen in service.




GROUND JOINTS are a feature of all these Walworth 300 pound malleable unions, and hence no gasket is needed. The unions can be taken apart and reassembled without affecting their strength and tightness.

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# CONSTRUCTION NEWS

*Under limitations order L-41 all projects involving expenditures of more than $5,000 must be specifically approved by the War Production Board. The status of projects reported herewith under the provisions of the order is not known.*—EDITOR.

**Green Bay, Wis.**—The Northern Paper Mills, Day street, manufacturers of tissue and other paper stocks, have plans maturing for new addition, no estimate of cost announced. A permit has been issued for structure and work will be placed under way soon. H. W. Gochnauer is chief engineer at mill, in charge.

**Baltimore, Md.**—Fire recently damaged a one-story building at plant of the Baltimore Paper Box Company, 1300 Covington street, manufacturer of corrurated boxes and containers, with loss reported close to $12,000. Structure was used for storage and distribution service. It is planned to rebuild at early date.

**Shelton, Conn.**—Better Packages, Inc., Canal street, manufacturer of paper and other boxes and containers, mending tissue, etc., has approved plans for new addition to plant. It will be used for expansion in production division. No estimate of cost announced. General erection contract has been awarded to J. J. Brennan & Sons, 40 Cliff avenue, Shelton, and work will be placed under way at once.

**New York, N. Y.**—The Ruberoid Company, 500 Fifth avenue, manufacturer of roofing papers, felts, etc., is operating on a maximum production schedule at its different mills in various parts of the country, giving employment to close to 3000 persons. During the past year, the company has developed new high production records, exceeding all previous output, with approximately 80 per cent of manufactured products used directly or indirectly for war service.

**Chicago, Ill.**—Tatterschall, Inc., 515 South Wells street, commercial paper products, has leased the entire sixth floor in building at 701-03 South LaSalle street, and will occupy for storage, distribution and general offices. Company will remove to new location at early date. Building now occupied at first noted address is to be razed to make way for the Congress street development of city.

**West Orange, N. J.**—Fire, October 24, damaged the plant of the Roth Paper Box Company, occupying part of three-story industrial building at 78 Ashland avenue, including first floor and basement. No estimate of loss announced. It is planned to rebuild.

**Georgetown, S. C.**—The Southern Kraft Division of International Paper Company, Georgetown, manufacturer of kraft paper stocks, corrugating board, etc., plans construction of a new wharf in Guerin Creek, a tributary of the Wando River, about two miles from Cainhoy, including dolphins and other facilities. It will be used in connection with pulpwood supply for mill at Georgetown. No estimate of cost announced. Application has been made for permission to proceed with construction.

**Painesville, Ohio**—Industrial Rayon Corporation, East 98th street and Walford avenue, Cleveland, Ohio, manufacturer of viscose rayon products, is said to have made arrangements with Government for expansion in mill at Painesville for production of high-tensile rayon for use as automobile tire fabric bases. Work will include conversion of certain present machinery and installation of new equipment for large increased capacity. It is understood that financing will be provided by Government. No estimate of cost has been announced.

**Milwaukee, Wis.**—The Consumers' Waste and Paper Company, 3100 West Auer avenue, waste paper stocks, has approved plans for improvements and extensions in storage and distributing building. General contract has been awarded to Bernhard Mendelson, 2344 North 45th street, Milwaukee, and work will be carried out at once.

## To Ease Burden on Business Man

WASHINGTON, D. C., October 28, 1942—The Senate Committee on Education and Labor has reported favorably to the Senate S. 1666—the Federal Reports Act of 1942.

This measure, known as the Murray Bill, originated in the Special Senate Small Business Committee of which Senator Murray is chairman. This committee recommended favorable action on the bill by the Congress as the result of thousands of complaints from business men, large and small, against the excessive demands of government agencies for reports and statistics. When formally introduced the bill was referred to the Committee on Education and Labor for legislative action.

It seeks to coordinate the activities of all Federal reporting services, eliminate duplication and overlapping and ease the burden on business caused by demands for a multiplicity of reports.

"The action of the Committee on Education and Labor was very gratifying to me," said Senator Murray. "The proposed legislation is badly needed to implement the work which the Director of the Bureau of the Budget is already seeking to do in putting a stop to the wholesale demands of Federal agencies on business for reports and information on every subject under the sun. In many instances the demands of one agency needlessly duplicate those of another, increasing the general confusion in the minds of business men as well as the cost.

"Approval of the measure by the full Committee guarantees that the bill will go immediately to the floor of the Senate where prompt action is certain."

## New Solid Fiber Product

The Southern Kraft Division of International Paper Company, 220 East Forty-second street, New York, N. Y., has developed a new solid fiber, designed for packaging of war materials instead of corrugated paper. The new material, it is said, insures dry contents even when submerged in water for two to three hours, and similarly, will stand more abuse and hard usage than corrugated paper stocks. It is proposed to continue the production of the new solid fiber after the war for use as a paper-board building material and other kindred service.

# Obituary

### Fred H. Milham

Fred H. Milham, 84, who had spent his entire life on the farm where he was born, the Hedges, Portage road, died at Kalamazoo, Mich., after an illness of eight months. For 30 years he was associated with his brother, the later Frank H. Millham, at the Bryant Paper Company, retiring in 1923.

Born Sept. 8, 1858, the sone of pioneer parents, John and Louise Milham, he had been a member of the First Presbyterian church more than 60 years. Oct. 28, 1885, he married Jennie B. Pomeroy, who survives.

Members of the Milham family were instrumental in the founding of Kalamazoo's paper industry and had been closely identified with the city's development. Ancestors came here almost a century ago, after two Milham brothers had originally settled in New York in 1710.

Surviving in addition to the wife, are a daughter, Gertrude Milham, at home; two sons, Elbert Milham, Watervliet, and Philip Milham, Toledo, and four grandchildren. Funeral services were from the Truesdale chapel with the Rev. Richard B. Wearne officiating. Interment was in Mountain Home cemetery.

### George E. Montague

George E. Montague, for many years connected with the paper industry, passed away at Woodside Cottages, Framingham, Mass., October 11 in his 86th year.

As a boy, he started as a shipping clerk in Holyoke and was very soon sent on the road. For a number of years he was head salesman for the Megargee Green Company in Philadelphia and in 1906 became associated with Tileston & Hollingsworth Company in Boston.

### W. F. Everding

INDIANAPOLIS, Ind., Oct. 26, 1942—The body of a man identified as W. F. Everding, a paper pulp salesman of Berlin, N. H., was found recently in a downtown hotel room here. Preliminary investigation showed he had been dead for several hours. Death was believed to have been due to natural causes and no autopsy was ordered.

### Walter B. Tappen Jr. Dead

GLEN RIDGE, N. J., October 19, 1942—Walter B. Tappen Jr. of this place, a member of the firm of Tappen & Indruk, New York, paper merchants, died here last week at Mountainside Hospital after a short illness. His age was 62.

## Lake States TAPPI to Meet

The November meeting of the Lake States Section of TAPPI is to be held on November 10 at the Conway Hotel, Appleton, Wisconsin. Dinner will be at 6:30 P. M. The speaker of the evening will be R. Canfield of the Groundwood Paper Manufacturers Association, and his subject will be "The Competitive and Economic Aspects of the Pulp and Paper Industry."


UNITED PIGMENTS

*Pure Titanium Dioxide*

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**A brilliantly WHITE, pure, fine titanium dioxide possessing excellent . . .**

- **OPACITY**
- **BRIGHTNESS**
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***Suitable for ALL types of paper ranging from thin printing papers and waxing tissues to coated book and magazine stocks.***

**UNITANE O—110 was especially developed for paper pigmentation. Its excellent dispersion in water promotes good retention and excellent sheet formation. As a component of the beater furnish, it produces whiter sheets of great brilliance, and superior printing qualities.**

***SAMPLES of UNITANE O-110 will be sent promptly upon request.***

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DIVISION OF INTERCHEMICAL CORPORATION

NEWARK, NEW JERSEY

SALES OFFICES IN PRINCIPAL CITIES

# FINANCIAL NEWS

### New York Stock Exchange

High, Low and Last for Week Ending October 24, 1942

| STOCKS | High | Low | Last |
|---|---|---|---|
| A. P. W. | .... | .... | .... |
| Armstrong Cork Co. | 29⅛ | 28¾ | 28¾ |
| Celotex Corp. | 7⅜ | 7¼ | 7¼ |
| Celotex Corp., pf. | 70 | 69¾ | 70 |
| Certain-Teed Products Corp. | 2½ | 2⅜ | 2½ |
| Certain-Teed Products Corp., pf. | 29½ | 28½ | 29 |
| Champion Paper & Fibre Co. | 18¼ | 18 | 18¼ |
| Champion Paper & Fibre Co., pf. | 97 | 95⅝ | 97 |
| Congoluem Nairn Co. | 16½ | 15¾ | 16½ |
| Container Corp. of America | 16¾ | 15¼ | 16¾ |
| Continental-Diamond Fibre Co. | 6⅞ | 6¾ | 6¾ |
| Crown-Zellerbach Co. | 12⅛ | 11⅝ | 11¾ |
| Crown-Zellerbach Co., pf. | 85 | 83½ | 85 |
| Dixie-Vortex Co. | 8⅝ | 8½ | 8⅝ |
| Dixie-Vortex Co.—A | 36⅞ | 36⅜ | 36¾ |
| Flintkote Co. | 12⅞ | 12⅞ | 12⅞ |
| Flintkote Co., pf. | 94 | 94 | 94 |
| Robert Gair | 2 | 1¾ | 1⅞ |
| Robert Gair, pf. | 9⅞ | 9⅜ | 9⅜ |
| International Paper Co. | 10⅛ | 8¾ | 9¼ |
| International Paper Co., pf. | 49⅝ | 46 | 48 |
| Johns-Manville Corp. | 62½ | 60 | 61¾ |
| Johns-Manville Corp., pf. | .... | .... | .... |
| Kimberly Clark Corp. | 26¾ | 26½ | 26¾ |
| MacAndrews & Forbes | .... | .... | .... |
| MacAndrews & Forbes, pf. | .... | .... | .... |
| Masonite Corp. | 28¼ | 27¾ | 28 |
| Mead Corp. | 7 | 6¼ | 6⅝ |
| Mead Corp., pf. | 67½ | 67¼ | 67½ |
| Paraffine Companies, Inc. | 31¼ | 31¼ | 31¼ |
| Paraffine Companies, Inc., pf. | .... | .... | .... |
| Rayonier, Inc. | 10 | 9¼ | 9¼ |
| Rayonier, Inc., pf. | 26¼ | 26 | 26¼ |
| Ruberoid Co. | 18¾ | 18⅝ | 18¾ |
| Scott Paper Co. | 36½ | 35½ | 36 |
| Scott Paper Co., pf. | 110½ | 110 | 110 |
| Sutherland Paper Co. | 22 | 21⅞ | 22 |
| Union Bag & Paper Corp. | 8½ | 7⅞ | 8⅛ |
| United Paperboard Co. | 3⅝ | 3⅛ | 3½ |
| U. S. Gypsum Co. | 59 | 55¼ | 59 |
| U. S. Gypsum Co., pf. | .... | .... | .... |
| West Virginia Pulp & Paper Co. | .... | .... | .... |
| **BONDS** | | | |
| Abitibi Pulp & Paper Co. 5s '53 | .... | .... | .... |
| Celotex Corp. 4½s '47 | 98⅜ | 98 | 98⅜ |
| Certain-Teed Products Corp. 5½s '48 | 91¼ | 90¾ | 91¼ |
| Champion Paper & Fibre Co. 4½s '50 | 104½ | 104½ | 104½ |
| Champion Paper & Fibre Co. 4½s '50 | .... | .... | .... |
| International Paper Co. 6s '55 | 105 | 105 | 105 |
| International Paper Co. 5s '47 | 102½ | 102¼ | 102⅜ |
| Mead Corp. 4½s '55 | .... | .... | .... |
| West Virginia Pulp & Paper Co. 3s '54 | .... | .... | .... |

### New York Curb Exchange

High, Low and Last for Week Ending October 24, 1942

| STOCKS | High | Low | Last |
|---|---|---|---|
| American Box Board Co. | 4⅞ | 4⅜ | 4⅞ |
| Brown Co., pf. | .... | .... | .... |
| Great Northern Paper Co. | .... | .... | .... |
| Hummel-Ross Fibre Corp. | 4 | 3½ | 3⅝ |
| National Container Corp. | 8⅞ | 8½ | 8½ |
| St. Regis Paper Co. | 1¾ | 1½ | 1⅝ |
| St. Regis Paper Co., pf. | 110 | 107 | 110 |
| Taggart Corp. | 2¾ | 2¾ | 2¾ |
| **BONDS** | | | |
| American Writing Paper Co. 6s '61 | .... | .... | .... |

## Kimberly-Clark Loses

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., October 26, 1942—Net income after taxes and reserves of the Kimberly-Clark Corporation, Neenah, Wis., for the quarter ending September 30 was $396,963.54, according to a statement issued last week. This is a decline from profits of the first quarter of 1942 at $553,747.46, and the second quarter at $473,607.84. Total income for the first nine months of the current year therefore is $1,424,318.84, and for the twelve months ending September 30, the net is $2,158,540.63.

Third quarter profits amount to 52 cents per share of common stock, as compared to $1.35 for the third quarter of 1941. Profit per share for the nine months of 1942 is $2.04, compared to $3.36 for the first nine months of 1941. Common stock of the corporation earned 83 cents in the first quarter of 1942, and 69 cents in the second quarter. Provision for dividends on the company's preferred stock in the 1942 third quarter totalled $149,445. The corporation has 488,173 shares of common stock outstanding.

Third quarter net of the William Bonifas Lumber Co., wholly owned subsidiary, was estimated $15,000.

## Gair Co. Nets $492,053

Robert Gair Company, Inc. and United States subsidiaries report for the nine months ended September 30, 1942, profit, after depreciation, interest and dividends of subsidiary company, and provision of $1,747,000.00 for federal income and excess profits taxes, before interest on income notes, of $492,053.09.

The provisions for federal taxes represent three-quarters of the estimated amounts of such taxes for the entire year based on the earnings for the nine months, extended to a year and computed at the rate of 90% for excess profits tax and 40% for normal income tax and surtax.

Gair Company Canada Limited, wholly owned subisiary of Robert Gair Company, Inc., reports for the nine months ended September 30, 1942, profit, after provision of $221,000.00 for Canadian income taxes, of $208,467.45 in Canadian dollars, which are not included in the above.

Due to the discount on exchange of Canadian dollars into United States currency, issue of a consolidated statement of earnings is impractical.

## Container Corp. Profits Up

Net earnings of Container Corporation of America, before and after Federal tax provisions (based on the recently enacted Revenue Act of 1942), for the nine month period ended September 30, 1942 were $1,738,475, or $2.22 a share.

Net profits and per share earnings for the three month and nine month periods ended September 30, 1941 were $631,010 or $.81 per share and $1,488,222 or $1.90 per share, respectively.

Shipments for the three and nine month periods this year totaled $10.417,000 and $37.891,000 as compared with $13,140,000 and $31,504,000 respectively for the same periods in 1941.

Last week the remaining balance of $600,000 of the term bank loans was prepaid.

## Abitibi September Net Up

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., October 26, 1942—Earnings of Abitibi Power and Paper Company, Ltd., for the month of September, 1942, prior to audit, charges for depreciation, bond interest of $259,497 (includes interest on overdue and unpaid interest) and income and excess profits taxes, amounted to $654.544, as compared with $1,087,261 in September, 1941.

Included in the above earnings for September, 1942, was $118,937.19 received as premium on United States exchange. Bond interest of $259,497.97 for such month is exclusive of the premium which would require to have been provided to permit payment of such interest to be made in United States funds.

# THIS WILL *Always* BE!

Wonder of the Western World—Niagara Falls has been called. And not by accident but apparently by design is it located here in America. Its thunder is the thunder of a people who have strength and happiness in freedom. Its movement is the restless, surging movement of men who feel a deep compulsion to go forward in history. Its power is resistless—and cannot be stemmed.

Those pioneers who first glimpsed the stately grandeur of Niagara saw in its rainbow the promise of a new world where peace and opportunity could be found. The rainbow is still there, and the peace and opportunity which America has given to millions are treasured beyond price. In a world where freedom is being crushed, Niagara symbolizes everything which this country means—strength, abundance, steadfastness. It is a limitless fountainhead of power which can be transformed into energy that brings good to all.

*We who work within sight and sound of Niagara Falls are devoting every ounce of our energies and facilities to speeding the flow of Chemicals for Victory.*

**CAUSTIC POTASH · CAUSTIC SODA**
**PARA · CARBONATE OF POTASH**
**LIQUID CHLORINE**

FROM THE ORIGINAL BY ADOLF DEHN . . . IN NIAGARA ALKALI COMPANY'S COLLECTION OF PAINTINGS OF NIAGARA FALLS

**Niagara ALKALI COMPANY**
60 EAST 42nd STREET, NEW YORK, N. Y.

Shipments of newsprint in September, 1942, amounted to 33,873 tons, as compared with shipments of 44,299 tons of newsprint in September, 1941, and 29,208 tons of newsprint in August, 1942. Present indications are that, with the tonnage required to be supplied by Abitibi (at rates of recovery yet to be determined) by reason of the interruption of the power supplies to other Canadian mills, shipments of newsprint in October, 1942, will be about 46,000 tons, as compared with 46,528 tons in October, 1941.

Shipments of sulphite pulps amounted to 8,055 tons in September, 1942, as compared with 12,820 tons of such pulps and substitute products in September, 1941, and 8,636 tons of sulphite pulps in August, 1942.

## Bowaters to Convert Bonds

The Royal Gazette, announced October 14 that the conversion of the B mortgage debentures of Bowaters Newfoundland Pulp and Paper Mills from 5½ to 3½% rate in interest.

The debentures covered a loan of £2,000,000 (about $9,700,000) guaranteed by the Government of Newfoundland in 1923 when the original agreement was made with the company for the establishment of a newsprint industry in Cornerbrook, Nfld. The conversion scheme was made possible through the cooperation of the company, the Bank of England and the British Treasury.

## Johns-Manville Profits Off

The Johns-Manville Corporation and subsidiaries, for three months ended September 30, 1942, reports sales of $28,074,219, compared with $25,941,410 year ago; net income $1,085,947 after taxes and charges, equal after preferred dividends to $1.23 a share on common; year ago $1,470,183 and $1.62 a share; nine months' sales $76,829,068, compared with $64,753,-919; net income $2,885,336 after taxes and charges, equal after preferred dividends to $3.24 a share on common; year ago $4,488,984 and $4.97 a share. Federal taxes $13,154,554, compared with $8,364,647.

## Central Paper Earns $2.64

The Central Paper Company, Inc., for the year to June 30, reports a net income of $581,948 equal to $2.64 each on 219,603 common shares, against $553,-223 or $2.93 a share on 184,701 common shares after dividend requirements on the preferred stock outstanding in the year ended June 30, 1941; net sales, $5,211,162 against $4,157,945.

## A. W. P. Earns $212,446

The American Writing Paper Corporation for the nine months to September 30, reports a net profit of $212,446, against $184,377 last year. September quarter: Net profit, $9,141, compared with $88,642 for similar quarter of 1941.

## Sutherland Nets $1.61

The Sutherland Paper Company for the nine months ended September 30, 1942, reports a net income of $462,908 after taxes and charges, equal to $1.61 a share on 287,000 common shares; a year ago $588,206 and $2.05 a share.

## Crane and Load-Carrying Truck

A new Elwell-Parker power industrial transportation unit performs not only the separate functions of a load carrier, a crane and a tractor but also combines the typical operations of all three.

As a load carrier, the mobile unit has an unobstructed platform 84 inches long x 40 inches wide x 25 inches high, with a rated capacity of 6,000 lb. As a crane handling up to 2,000 lb. at 42 inches on the boom, it lifts and transports castings or other heavy, bulky objects. As a tractor, it first loads the trailers by means of its own crane, then hauls them at speeds up to 5 m.p.h.

The truck operates with 2-wheel drive and 4-wheel steer. The frame is made up of heavy section formed plates welded into a rugged one-piece structural unit embodying the control dash. The boom is of special design, of heavy formed channel members rigidly reinforced with tie rods, lattice bars and gusset plates and slews around a 3½ inch diameter alloy steel pillar.

Listed under the Underwriters' Laboratories' re-examination service, the design further embodies such features as widely spread stabilizing compound coil springs on drive and trail axle; equal length full floating drive shafts; and Elwell-Parker heavy duty motors.

## National Gypsum Nets 18 Cents

The National Gypsum Co., for the quarter ended September 30, 1942, reports a net income of $311,224, or 18 cents a common share, against net income of $556,581, or 37 cents a share, in September, 1941, quarter and $227,691, or 11 cents a share, in June, 1942, quarter. For nine months ended September 30, 1942, net income $692,677, or 36 cents a share; for like 1941 period, net income $1,200,629, or 75 cents a share.

## Pound Notes Not Waste Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 28, 1942—Pound notes and ration books for food and clothing are not to be considered waste paper, say British authorities reports here state.

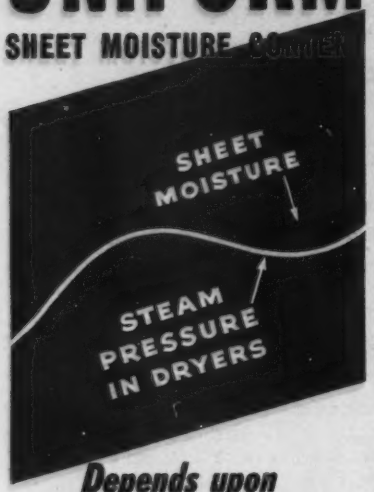
The nation's present waste paper salvage drive is exceeding all expectations, but cleaning inspectors frequently find money and valuable papers, including ration books among the waste.

## Oxford Nets $376,372

Despite a gain of more than $120,000 in gross earnings in the nine months ended on September 30, net earnings dropped to $376,372 from $816,342 in the same period last year, the Oxford Paper Company reported today. The reduction was due to provision for Federal taxes, which were more than doubled this year, the company said.

# UNIFORM

**SHEET MOISTURE CONTENT**

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**CONTROLLED**

***Pressure Changes***

IF you are to get truly uniform sheet moisture content, steam pressure in your dryers must increase or decrease as moisture in the sheet increases or decreases. Maintenance of uniform pressure will not take care of sheet moisture variations, tending only to average out final moisture content.

The outstanding success of the Armstrong Stamm Moisture Control System lies in the fact that it *automatically varies the pressure* to produce UNIFORM moisture content throughout the sheet! This system is delicate in operation, yet ruggedly built and easily operated. Thoroughly proven in service, it is offered on a basis of satisfaction guaranteed. Complete information on request.

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**ARMSTRONG MOISTURE CONTROL SYSTEMS**

DRYER DRAINAGE SYSTEMS
GRADUATE TEMPERATURE CONTROLS
STEAM TRAPS • HUMIDIFIERS


## Key Campaign Closes

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., October 26, 1942—Under the direction of Matthew O. Byrne, of Whitney Brothers, Inc., general chairman of the New England Key Kollection Kampaign; Floyd H. Blackman, of D. F. Munroe Company, and J. Allan Odaniel, the big weight of 2,000,000 keys was moved from City Hall to the warehouse of the Alden Storage Company, October 23. These keys were among those collected in Greater Boston with the cooperation of the Boston Post for the New England Paper Merchants Association and are for the manufacture of guns for the Navy. They are to be shipped to the Government smelters at Rome, N. Y., where they will be transformed into cupro-nickel alloy for the linings of naval guns, that will answer Hitler and Hirohito.

Although the campaign closed October 15, people are still asking for containers and the committee is still receiving keys.

Mr. Byrne is arranging for central collection points throughout New England from which keys are to be shipped to the Government refinery.

The following letter, signed by E. J. Durkin, president of The Paper & Twine Club, and president, The Tanglefoot Company, Grand Rapids, Mich., has sent the following letter to all chairmen in connection with the key campaign:

Our Government won't forget . . . our fighting men won't forget . . . the public won't forget . . . and that trio of tyrants . . . Hitler, Hirohito, Mussolini—can't forget!

We mean the unselfish, willing, cooperative effort you have put forth in collecting keys to supply metal absolutely necessary to keep our country's smelters going.

In the final roundup, please take note of the following instructions: 1. Fulton Lewis, Jr. has volunteered to promote, for a week or ten days a "mopping up" campaign to collect additional keys. These keys are to be sent to the nearest Mutual Broadcasting Station. Papermen are to pick them up after the "mop-up" drive is over.

2. On October 15 the Motion Picture Industry started its salvage drive to collect small metal. Among this metal will be thousands of KEYS . . . 16,000 theatres throughout the country have been asked by Arthur Mayer, Salvage Director of the War Activities Committee of the Motion Picture Industry, to segregate the keys and turn them over to papermen. . . . You are to contact the theatres, ascertain the approximate quantity of keys they have, and supply a carton in which to dump them for transport to your warehouse.

It is immediately apparent that these extra keys from theatres, and those accumulating at Mutual's radio stations, will add considerably to the tonnage which is mounting fast.

We know we can count on you to follow through. Our sincere thanks for your patriotic spirit and unselfish cooperation!

## Fair Paper Demand

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., October, 24, 1942—While little change was reported generally in the paper market in this section last week, there was a fair demand for many lines. Prices for the most part, remained firm and there is nothing to indicate any radical changes.

Fine papers were moving in fair shape, demand for book, cover and ledger being steady. The volume, of course, is below that of last year, but prices are firm.

The real thing that appears to be worrying the entire trade from manufacturers on down, is the labor situation. Not only the fact that wages are increasing, but the fact that there is no labor to speak of. There are many box factories in this section and they all are busy as bees, but a shortage of labor threatens to curtail production. Labor either has gone to the army or to big paying defense industries and the vast labor pool that formerly was available to the box industry now has dried up until it is a mere puddle. Much the same situation faces the paper jobbers. Truck drivers are scarce and other help equally so. Much of the product of the box companies now is going to defense purposes, but the factories themselves hardly can be classed as defense factories.

Last week kraft demand was good. Demand came from a variety of sources and prices were firm. Tissues also were in good demand.

Building paper continued to move sluggishly, particularly as compared with last year. Bag and wrapping paper demand was good and even a trifle better than it was the week before.

Local paper stock men say the rag demand last week was somewhat improved. Their collections were low and the stocks in local houses are not large. The rag demand also was steady to good. Roofing rags appeared in fair demand and better grades were moving and bringing top prices.

## New TAPPI Members

The executive committee of the Technical Association of the Pulp and Paper Industry has elected the following to membership:

Clair A. Bentz, technical adviser and chief chemist, the D. M. Bare Paper Company, Roaring Spring, Pa., a 1932 graduate of Gettysburg College and formerly with the P. H. Glatfelter Paper Company, Spring Grove, Pa., has been reinstated as an active member.

Bernard B. Blaney, laboratory assistant, Bemis Brothers Bag Company, East Pepperell, Mass.

William H. Caddoo, division chemist, Piermont Division, Robert Gair Company, Inc., Piermont, N. Y., a 1932 graduate of Colby College.

Mamerto M. Cruz, research chemist, American Viscose Corporation, Marcus Hook, Pa., a 1939 graduate of the University of Philippines, with an M.S. degree from the Massachusetts Institute of Technology in 1941.

Harry Edwin Davis, installation and maintenance engineer, Maxson Automatic Machinery Company, Westerly, R. I.

James Foote, technical director, Berst-Forster, Dixfield Company, Plattsburg, N. Y., a 1936 graduate of the Institute of Paper Chemistry and formerly with the Munising Paper Company, Munising, Mich.

G. H. Gallaway, technical supervisor, Crown Willamette Paper Company, Camas, Wash., a 1932 graduate of Oregon State College.

Gerald F. Green, chemist, Puget Sound Pulp and Timber Company, Bellingham, Wash., a 1940 graduate of the University of Washington.

Harry F. Highfield, apprentice engineer, Oxford Paper Company, Rumford, Maine, a 1939 graduate of Pennsylvania State College.

Frank A. Jensen, paper mill superintendent, Hollingsworth & Whitney Company, Magazine Point, Ala., and formerly with the Monroe Paper Company, Lawrence, Mass.

Charles P. Kirchen, research chemist on paper, International Business Machines Corporation, Endicott, N. Y., has been transferred from the associate to the active grade.

F. D. McGillicuddy, Jr., assistant personnel manager and safety engineer, Grays Harbor Division, Rayonier Incorporated, Hoquiam, Wash., a 1936 graduate of the University of Washington.

Donald M. Parkin, the Societe Nationale du Papier, P. O. Bag, Alexandria, Egypt, has been reinstated as an active member.

Walter P. Quinn, assistant manager of paper mill, Container Corporation of America, Manayunk, Philadelphia, Pa.

Lucien Holland, engineer, Rolland Paper Company Limited, Mont-Rolland, P. Q., Canada, a 1936 graduate of the University of Montreal, with a B.Sc., degree in 1942.

Charles M. Sigvardt, student, Institute of Paper Chemistry, and a 1940 graduate of Montana State University.

John E. Spalding, assistant manager pilot plant, American Viscose Corp., Nitro, W. Va., a 1931 graduate of the Massachusetts Institute of Technology, and formerly with the Oxford Paper Company, Rumford, Maine, has been rinstated as an active member.

James W. Wenger, Newsprint Division, Central Technical Department, Crown Zellerbach Corporation, Camas, Wash., a 1937 graduate of the University of Washington.

Charles J. Wright, chief chemist, the Chillicothe Paper Company, Chillicothe, Ohio, a 1931 graduate of the University of Cincinnati.

**DOMINATES THE PICTURE NOW**

*and Warren Pumps have always been Quality Pumps*

**Yes, the Paper Mills who have purchased Warren Pumps in the past now realize, as perhaps never before, that the best is the cheapest in the long run. The PLUS which has always been built into Warren Pumps will successfully see them through this emergency — an emergency during which present equipment is expected to do an efficient job — without costly service interruptions and with a minimum of repairs.**

**WARREN Steam Pump Co., Inc.**

**WARREN, MASSACHUSETTS**

PAPER
TRADE JOURNAL
Title Reg. U. S. Pat. Off.
Henry J. Berger
EDITOR

Vol. 115 October 29, 1942 No. 18

## COMING EVENTS IN PAPER INDUSTRY

NEW ENGLAND SECTION. Technical Association of the Pulp and Paper Industry—Third Friday of each month at the Roger Smith Hotel, Holyoke, Mass.

DELAWARE VALLEY SECTION. Technical Association of the Pulp and Paper Industry—First Friday of each month at the Engineers Club, Philadelphia, Pa.

LAKE STATES SECTION. Technical Association of the Pulp and Paper Industry—Second Tuesday of each month at the Conway Hotel, Appleton, Wis.

KALAMAZOO VALLEY SECTION. Technical Association of the Pulp and Paper Industry—First Thursday of each month at the Park, American Hotel, Kalamazoo, Mich.

## FEDERAL SECURITIES

As rapidly rising government expenditures increase the difficulty of financing the war, simplification of some phases in the procedure of federal security issues becomes of added importance. Government spending passes $20,000,000,000 for the current fiscal year on October 22 and $18,400,000,000 of this sum was for war. October borrowing of $4,100,000,000 increased the public debt to more than $95,737,000,000 last week. The new Revenue Act of 1942 places a heavy burden on practically all citizens and business concerns and it seems timely to consider the most important burdensome restrictions on the disposition of federal securities.

In discussing this topic, Harley L. Lutz, Professor of Public Finance, Princeton University, in the October issue of *The Tax Revue*, published by Tax Foundation, 30 Rockefeller Plaza, New York, states in part: "To reduce the amount of borrowing required from commercial banks, the Treasury announced early in the year a program for raising at least $12 billion through voluntary War Bond sales. While the sales have met with relative success, they are short of the monthly goal and the amount of debt to be financed has jumped $22 billion since estimates were first submitted in January. More and more there appears the likelihood that some form of compulsory savings is in prospect. The refund provision of the Victory Tax incorporates this general principle. A committee has been appointed by the Senate to report on a compulsory savings plan before the end of the year. If post-war refunds, compulsory savings and compulsory purchase of War bonds become a substantial part of our financing, it is important that consideration be given to the plan and procedure for refund and redemption payments. Refund rights and bonds will be widely held; they will represent a large percentage of total savings. To the individual with a small estate, they may constitute the bulk of his savings. It is, therefore, of paramount importance that provisions for refund and redemption be drawn to enable him or his beneficiary to exercise his rights without hardship or delay. In this connection, it is of interest to note some of the difficulties, under the present procedure for disposition of federal securities, that now beset the surviving spouse of a deceased bondholder who has left only a small estate. The broad implications of the savings and borrowing program must be recognized and a simple, workable plan agreed upon that will obviate all complicated and unrealistic requirements."

Mr. Lutz continues: "With the widespread diffusion of War Bonds acquired by voluntary purchase, and even the wider diffusion of such bonds in prospect by compulsion, it is evident that there will eventually be many thousands of holders who will have only small estates to be settled in due course 'without administration'. Take, for example, the case of a deceased defense worker whose small estate contained one or more registered in his name. His widow must arrange for the redemption, reissue or other disposition of these bonds, or it may be only one bond which cost $18.75, worth $25 at maturity. The widow encounters first, Part 1 of Form P. D. 1646, entitled 'Principal Affidavit.' This affidavit must be executed, if possible by all living persons who are named in the sub-division of paragraph 1. That paragraph contains seven sub-divisions. . . . In short, the first step which the widow must take who wants to turn in an $18.75 bond registered in her deceased husband's name is to furnish the names of all persons who might be in any way related to her dead husband in accordance with the requirement of seven separate categories. By the time the widow gets the above family tree made out, she may be a trifle discouraged; but she is barely well started and the going gets tougher farther on. . . .But consider for a moment just what is involved in complying with this first part of the principal affidavit. The form itself must bear the signatures and affidavits of all living descendents of the deceased named in the affidavit. If there are none it must be signed and sworn to by direct relatives, ancestors, brothers, sisters or, if deceased, their descendents. In the absence of any of these, it must include indirect heirs as far removed as uncles, aunts or cousins or issue of cousins whose parents are not living. And if there are no living relatives within those degrees of kinship, sub-division (g) requires the widow to go still farther afield and to track down, not only other relatives but other claimants, to the securities in question."

The other requirements include a statement of the place and date of death of the decedent, proof of death, statement relative to the existence of non-

existence of a will, information relative to undertakers, physicians, nurses, hospitals and all other persons who rendered services or who furnished supplies in connection with the final illness of the decedent. In commenting on this maze of legalistic red tape, Mr. Lutz says in part: "If Form P. D. 1646 were to be put before each person who is asked to buy registered War Bonds of any description, it is safe to say that the sales of these securities would be most adversely affected. The writer is not publishing this description in order to injure that sale. On the contrary, the objective is to secure, if possible, a reform of the crippling procedure which must eventually wreck the bond sale program unless it is changed. . . . One way to speed up bond sales would be to cut this bit of red tape into small pieces and get ready to back up the assurance so freely given when the bonds are sold, namely, that they will be redeemed as promised, without fuss, feathers or formality. Some procedure can and should be devised which will not expose anyone to the expense, delay and tribulation that are inevitable wherever Form P. D. 1646 is to be used."

## Dramatize Britain's Paper Shortage

Dramatizing the nation's pressing paper shortage, British authorities saved the equivalent of 150 cargoes during 1941 by careful salvage of waste paper, according to reports. An attempt will be made to save at least the equivalent of 200 shiploads during 1942.

Outstanding influence in English paper salvage has been the traveling exhibition "Waste Paper Goes to War," which depicts the various munitions and war supplies largely dependent upon paper. Appearing recently in London shops, the exhibit drew large crowds throughout the city.

Every form of waste paper must be saved according to regulation. British bus tickets must not be thrown away, and severe penalties follow conviction for burning or otherwise destroying paper.

The waste paper exhibit is at present on tour throughout the nation, featuring a gun turret of a bomber, accompanied with reminders that bullets need wads made from waste paper.

A 30-foot conveyor belt used for sorting waste paper, attended by five girls, is an additional feature of the exhibit.

## Michigan Div. to Hold Traffic Meeting

The next meeting of the Michigan Division of the American Pulp and Paper Mill Superintendents Association will be held on Thursday, November 19, at the Park-American Hotel in Kalamazoo. Dinner will be served at 6:30 P. M.

Charles A. Skog of Detroit, general freight agent for the Grand Trunk Railroad, will speak on "Traffic and Transportation." In view of the present status of shipping and the transportation problems with which the paper industry is confronted today, Mr. Skog's remarks should be of vital interest to all paper mill men. Coming three days before gas rationing becomes effective for the Middle West makes a topic of this nature especially timely.

## Production Ratio Report*

(Production as per cent of six-day capacity)

COMPARATIVE WEEKLY SUMMARIES

| Current Weeks—1942 | | Corresponding Weeks—1941 | |
|---|---|---|---|
| Sept. 12 (Holiday Week) | 70.4 | September 13 | 104.2 |
| September 19 | 83.9 | September 20 | 103.8 |
| September 26 | 87.5 | September 27 | 105.9 |
| October 3 | 86.9 | October 4 | 103.6 |
| October 10 | 88.6 | October 11 | 102.1 |
| October 17 (Preliminary) | 89.6 | October 18 | 105.5 |

COMPARATIVE MONTHLY SUMMARIES

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July |
|---|---|---|---|---|---|---|---|
| 1941 | 85.6 | 89.7 | 92.3 | 96.0 | 98.7 | 99.3 | 94.2 |
| 1942 | 104.5 | 103.9 | 102.9 | 100.4 | 95.3 | 87.3 | 75.8 |

| Year | Aug. | Sept. | Oct. | Nov. | Dec. | Year Avg. |
|---|---|---|---|---|---|---|
| 1942 | 101.0 | 99.7 | 105.2 | 106.2 | 100.4 | 97.4 |
| 1942 | 80.8 | *82.8* | .... | .... | .... | .... |

COMPARATIVE YEARLY SUMMARIES

| | 1935 | 1936 | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 |
|---|---|---|---|---|---|---|---|---|
| Year to Date.. | 69.1 | 78.7 | 85.4 | 70.2 | 80.5 | 86.2 | 95.6 | *92.0* |
| Year Average. | 69.9 | 80.4 | 79.8 | 71.5 | 83.4 | 85.6 | 97.4 | ... |

* Based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available. Does not include mills producing newsprint exclusively.

PAPERBOARD OPERATING RATIOS †

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Year Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1937 | 83 | 89 | 89 | 91 | 88 | 80 | 69 | 77 | 72 | 70 | 57 | 47 | 75 |
| 1938 | 56 | 63 | 63 | 60 | 60 | 59 | 59 | 60 | 70 | 73 | 67 | 61 | 64 |
| 1939 | 65 | 73 | 76 | 74 | 69 | 73 | 68 | 77 | 82 | 91 | 88 | 77 | 77 |
| 1940 | 78 | 75 | 74 | 76 | 82 | 85 | 77 | 79 | 78 | 85 | 82 | 77 | 78 |
| 1941 | 81 | 88 | 89 | 89 | 91 | 94 | 92 | 98 | 95 | 99 | 98 | 90 | 92 |
| 1942 | 102 | 101 | 101 | 95 | 82 | 72 | 68 | 75 | 76 | .. | .. | .. | .. |

Week ending Sept. 12, 1942—65
Week ending Sept. 19, 1942—81
Week ending Sept. 26, 1942—78
Week ending Oct. 3, 1942—80
Week ending Oct. 10, 1942—80
Week ending Oct. 17, 1942—79

† Per cents of operation based on "Inch-Hours" reported to the National Paperboard Assn.

## Perfect New Container

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., October 26, 1942—Since last fall the Inland Container Corporation, with headquarters here, has spent thousands of dollars in research and believes it has perfected a container which will stand the punishment of foreign shipments and also meet weight requirements.

Long hours have been spent in this development by C. A. Behringer and G. E. Bomberger, vice presidents, and W. R. Lincoln, Jr., development engineer, who now is serving in the war department as a research specialist in war packaging.

This container development and future improvements will be available for all makers of fiber containers, Herman C. Krannert, president of the company explains. None of the processes will be patented. He and his associated say they want the development to be the industry's contribution to the war. For months army representatives and company officials have been testing containers, particularly to see how much soaking they can stand in sea water. While perfection has not been entirely attained, the results have been very satisfactory.

## 50 Years with Hollingsworth & Vose

EAST WALPOLE, Mass., October 26, 1942—Robert W. Lennox completed fifty years of service with the Hollingsworth & Vose Company, manufacturers of rope and jute manila papers, of this city on October 16. The company presented him with a gold watch and chain and he also received other gifts from the employees of the company.

Mr. Lennox is still active and is enjoying the best of health.

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# ROSIN SIZE

In considering his source of supply for Rosin Size, the buyer of sizing materials expects the concern with whom he deals to meet certain standards.

1. It should be a well-established institution — one with an outstanding reputation.

2. It should have proper physical facilities for maintaining unfailing service . . . factories and warehouses strategically located for quick and economical delivery . . . plus raw material resources such that its own supply is protected in times when productive capacities are heavily taxed.

3. It should have a group of products that meets the wide variety of conditions encountered in the Paper Industry.

4. It should have a trained manufacturing organization guided by alert control chemists and engineers so that the products will always be of uniform high standard.

5. It should energetically carry on research to enable development of increasingly improved products.

6. It should maintain a service organization of trained specialists to assist the size user to obtain the greatest value from his sizing materials.

Cyanamid Rosin Size products are made dry or liquid in various concentrations to suit any mill's particular requirements. They are available in bags, drums or tank cars at the option of the mill management. The list includes Gum Rosin Size and Wood Rosin Size. The latter is obtainable either in bright pale grades or the less costly darker sizes. All are made under strict technical control, and Cyanamid's research staff is constantly at work improving them. Experienced service men are at your call when needed. Cyanamid can supply you reliably, continuously and economically. You will enjoy many advantages of product reliability and service by joining the large group of users of Cyanamid Rosin Sizes.

Liquid Size is convenient to use and can be accurately metered into the beaters as needed.

Dry Size is economical to ship and store. It is also particularly suited for use in smaller quantities.

Cyanamid Rosin Sizes are made under strict technical control to assure highest quality and uniform

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ROSIN SIZES • SYNTHETIC RESINS
CASEIN • ALUM • CORN STARCH
TAPIOCA FLOUR • SULPHONATED OILS
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Section of the
TECHNICAL ASSOCIATION
OF THE PULP & PAPER INDUSTRY
Edited by R. G. Macdonald, Secretary

# Hide Glue for Tub Sizing*

By O. V. Simonson[1]

**Abstract**

*Hide glue is made from hides of various animals. The first step in manufacturing glue is washing the hides, then liming to soften the hides. The lime is now removed by washing and acidulating. The stock is then removed to the cooking tub, where cold water is added and heat applied. The dilute liquor formed is drawn off to a vacuum evaporator and concentrated. This procedure is repeated four or five times. From the evaporator the glue passes through a filter which removes all grease and other foreign material. It now goes to a chill box to form a jelly and then to the dryhouse. Then it is crushed and ground.*

*In preparing the glue, it is soaked in cold water until soft. The temperature is then raised to 140 F. until the glue dissolves.*

*The essential points to consider in selecting glue are:*

*Fluidity, temperature, concentrability of sizing solution, and type of paper to be sized.*

*Specifications for sizing glue are keeping quality, appearance of dissolved glue, acidity, and odor.*

Hide glue is made from the hide, connective tissue and sinews of cattle, sheep, goats, horses, deer, and other animals. These raw materials do not in themselves contain glue, but an organic substance known as collagen, and the function of the manufacturer is to treat this raw material so as to convert the collagen into glue, separate it from extraneous matter and then dry it and pack it. The gluemaker must know from long experience and much scientific research the best type of raw material adapted to the purpose for which the glue is to be used.

There was an old-fashioned idea that the hide from horn bearing animals always made excellent binding glue, while that from animals without horns produced fine sizing glue. However, scientific study and research soon developed that the collagen in horn bearing and nonhorn bearing animals was the same—it was the method of treating this collagen that produced the result.

In the making of glue for the paper manufacturer it must be borne in mind that the solution is used in a weak form and that the vats sometimes stand for a week or more; consequently, the glue must be absolutely sound and free from bacterial contamination. Also, it must have a viscosity that will give a sizing that is economical, and the color must be such that it will leave no trace on the paper, and that it will aid in preventing a change in color at a later date. The viscosity must be absolutely natural, because the addition of any chemicals to increase the viscosity surely will spoil the penetration of the product.

When glue is properly made it is a natural for the growth of bacteria, so all glue manufacturers use a small amount of preservative to prevent the glue from picking up bacteria between the time it leaves the factory and the time it is ready to be used in your plant. Considering the weak solution of glue used for paper sizing and for sizing other materials, an additional preservative is called for, and what may be a good preservative for one man's glue may be poison to another man's glue. Often it will ruin the viscosity and has frequently caused a curdling effect. It is a good plan to consult your glue manufacturer as to the proper type of preservative to add; it will not only save you disappointment but some money.

## Manufacture of Glue

The glue manufacturer's source of raw material, to a large extent, is the tannery—whether it be a cattle tannery, calf tannery, deer, sheep, or goat tannery. These stocks reach the glue manufacturer in two forms—the pieces that have been cut from the hides before they went into the lime vat are salted; those that have been trimmed off after liming are treated with lime. Both lime and salt are excellent preservatives.

The first step in the manufacturing process of hide glue is the washing of this raw material with pure water to remove dirt and all other loose foreign material. The next step, which requires as long as 80 days, depending upon the type of stock, is the treatment of the clean stock with a milk of lime solution to plump or swell it preparatory to the extraction of the glue. This liming also loosens the hair and dissolves the albuminous matter always present in skin but is extraneous as far as glue is concerned.

After this liming process has progressed to the proper point, the alkali and other foreign materials must be removed completely by washing with pure water so that there will be nothing but pure collagen ready to be extracted. By this time the stock is really too soft to handle and a small amount of acid is added and agitation continued in the wash mill to firm the stock and to ascertain that the entire alkali content has been removed.

The stock is then removed to the cooking tub where fresh cold water is added and heat applied.

During the first process the temperature is maintained at about 160° F. for 45 minutes when a dilute liquor is developed and part of the collagen has been

*Presented at the Fall Meeting of the Technical Association of the Pulp and Paper Industry, Hotel Statler, Boston, Mass., Sept. 29-Oct. 1, 1942.

[1] Milligan and Higgins Corp., New York, N. Y.

converted into glue. This dilute liquor is siphoned off and then goes to the vacuum evaporator, where it is evaporated until it has about 12% of dry glue. This process is repeated four or five times and while the dilute liquor may have a little higher baume because the temperature is raised 12° F. each time, it still yields a weaker glue. In this way the different tests of glue are produced, each adapted for a particular type of work.

For certain purposes the natural grease must be left in the glue so as to avoid foam in fast running machines. In paper sizing it is essential that all the grease be removed so that there will be no eyes on the paper.

After coming through the evaporator the goods are put through a plate and frame filter which removes any grease that may be left as well as keratins and peptones that may be in the solution. This goes to the tank in which there is a greaseless defoamer added so as to stop foam, and a small amount of preservative, and it is passed over a tubular cooler very much like a milk cooler which reduces the temperature to just about the setting point in one minute. This not only prevents the growth of bacteria, but prevents hydrolysis and preserves the protein.

It now goes into the chill box and in the course of two minutes a sheet of brilliant glue, 30 inches wide, comes out on the belt, is automatically laid on the wire netting and run into the dryhouse. The following day it is a sheet of hard, dry glue which then goes through the crusher and then is ground to the fineness which the customer desires.

This entire process seems simple, yet many people have tried and failed. It requires careful chemical control, watchful study of the raw material, and a close contact with suppliers to see that they have not changed their methods of drying stock without your knowledge.

The difficulty has always been uniformity and this industry has strived for 50 years to achieve this. It is remarkable the progress that has been made in supplying a uniform product day in and day out.

### Preparation of Size Solution

Always soak glue in cold water for two hours. Longer soaking will allow bacteria to develop, especially in the summer months when the water temperature rises rapidly.

Some paper mills experience great difficulty in adding alum to their size solutions, when the glue is hot. It is suggested adding the alum to the cold water in which the glue is soaked.

After soaking gradually raise the temperature to 140° F. until the glue is completely in solution. It should then be lowered to sizing temperature as soon as possible. Overheating will break down viscosity and jelly strength.

My experience while conducting a research at the Mellon Institute showed the greatest percentage of loss from overheating occurred during the first two hours. As previously stated, during that part of the manufacturing process where the glue is in solution, considerable pains are taken not to overheat it.

### Selection of Proper Sizing Glue

The essential points to consider are:

1. Fluidity of sizing solution
2. Temperature of sizing solution
3. Concentration of sizing solution
4. Type of paper to be sized.

The fluidity is controlled by the viscosity of the solution which, in turn depends upon the concentration, temperature of the glue solution and the grade of glue. From this it is readily seen that any test of hide glue can be made up to the proper fluidity. The factor determining the proper test to use is the type of paper to be sized. Where more penetration is desired a fairly low testing glue may be used to advantage. When a heavy type of paper is to be sized a much higher testing glue should be used. I might add, however, a considerable range in test may be used with either grade of glue.

### Specifications for a Quality Tub-Sizing Glue

1. *Keeping quality:* This is merely aging the glue solution without preservative and observing the appearance of bacteria. A good indication of the purity of a glue is thus obtained. This is most important for loft-dried and wet-packed papers.
2. *Appearance when dissolved:* A clear, transparent solution is not essential, but it should be free of extraneous material and sediment.
3. *pH:* The pH should range between 6.0 and 6.6 If the pH is thus controlled no color fading will be encountered.
4. *Grease content:* The free grease should be within a reasonable limit of not more than 0.3%, thus eliminating any danger of "eyes."
5. *Viscosity:* The viscosity of the glue selected may have a wide range, as previously stated.
6. *Odor:* Each manufacturer's glue has a characteristic odor, depending on the process and stock from which it is made. If the odor is sweet, you can depend on the glue. The keeping test has already determined the presence or absence of bacteria.

### Should Control Every Step

The glue manufacturer should control every step by modern scientific tests to produce the highest quality and most uniform glue possible. It is now up to each of you to maintain these same standards when using the glue.

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## To Eliminate Non-essential Use

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 28, 1942—George A. Renard, Chief of WPB Printing and Publishing Branch, has sent further information to the printing trade dealing with supplies which that industry uses. In discussing paper Mr. Renard said:

"The critical shortage of manpower in logging camps of certain areas, coupled with power shortages in some paper-making areas and an over-all transportation shortage, makes necessary the elimination of non-essential use and waste of paper.

"Inventory restrictions on paper again became applicable on October 1. During the Summer months these restrictions were lifted and consumers were permitted to build up inventories in order to relieve an anticipated fall transportation shortage. Paper now is subject to the Inventory Restrictions of paragraph 944.14 of Priorities Regulation No. 1.

"Applicants under Form PD-1A will expedite the processing of their applications if they will supplement the required information with a letter giving their exact inventory and their consumption during the year 1941 and 1942 to date of the material requested."

# Opportunities and Services of the Paper Industry*

By Ralph A. Hayward[1]

## Spirit of the Paper Industry

The purpose of this convention of the Technical Association of the Pulp and Paper Industry is to find ways and means whereby the pulp and paper industry can render greater assistance in the war program.

We recognize that we are engaged in the greatest war in history. We realize that it will take the undivided effort of every man and woman in the country to either produce the materials for war and the materials essential to our civilian supply, or to join our armed forces. Great sacrifices will have to be made, both by individuals and organizations. No sacrifice is too great if it will help us to win this war in a reasonable length of time.

We are confronted with the problems of how we can contribute most toward winning the war. The spirit of the paper industry is to give all that it has to this end. A large percentage of the products of the industry are now being used directly for military purposes.

A very impressive and dramatic statement could be made about the importance of paper. The men and women associated with the industry know a great many of these uses and any one of them could develop a presentation.

There still remains an unlimited opportunity for service in this direction. New products and new applications are being developed day by day. Many of these are now going into production and will add to the service that the industry is now rendering to the war program.

Innumerable substitutes for vital metals and other materials have been developed, and we hope the deliberations of these meetings will result in a great many more applications in this direction.

Many problems connected with the food supply for the armed forces and for essential civilian use remain unsolved and intensive efforts in this direction are needed. More and more paper is being used to protect the instruments and materials of war. It is of great importance that these materials be delivered to the fighting fronts free of corrosion, tarnish, or marring. Treated papers of one kind or another are needed to improve this protection.

Paper cartons and boxes are being used in an increasing amount for packaging and shipping of these materials. They are proving invaluable in this service, but there is still need for stronger and more protective boxes which will stand all kinds of weather and shipping conditions.

That a large percentage of the industry is highly essential is admitted and understood by everyone. It is also commonly believed that a substantial proportion of the products of the industry are being used for nonessential and luxury purposes. No one would question the fact that some conservation can be made in these cases, and that an effort should be made to eliminate nonessential uses that are obvious.

## Problems of Curtailment

There is much thought and discussion being given these days to the problems of curtailment and concentration within the industry. The objectives of such a program are—first, to release men and women from the industry whose services can be used to a better advantage in some other plant; second, to conserve critical materials that are now being used by the industry; third, to conserve transportation space on both railroads and trucks; fourth, to conserve power and make available this power to others.

No one within the industry could raise any objection to such a program or its objectives, and everyone stands ready to cooperate in making it effective.

One of the questions in the minds of people engaged in the industry is the extent and degree to which the industry can contribute to such a program, and there is the hope that all facts will be carefully weighed before each step is taken.

It is true that you can enumerate a great many uses of paper which are of the luxury class. There is a question, however, as to how much volume is involved and what percentage this represents of the total production of the industry.

Some may think that our present use of printing papers, such as magazines, newspapers, advertising circulars, etc., is excessive. Curtailment here may mean curtailment in information and knowledge that is made available to the public. Those of us in the industry who come from the highways and byways of the country realize that there is lack of understanding, and confusion exists in the minds of the people. Many feel that they are being restricted and regimented beyond the point of necessity, so that the general morale is not as high as it could be if they had a better understanding of the conditions and problems that face our country.

Certainly, more should be written about the sugar situation. Many do not fully appreciate the problems involved with tires and gasoline. There is still a great deal of misunderstanding about price control. You hear comments everywhere about the scrap collection program. After the experiences with the collection of aluminum pots and waste paper, people are beginning to wonder whether there is a real need for scrap or not.

## Democracy and Education

Democracy and Freedom are predicated on Education, with the faith that when people are sufficiently informed, they will give voluntarily and generously and will accept sacrifices willingly. Unquestionably such sacrifices will have to be regulated by national orders in order to keep them fair and just.

In order to keep a skeleton form of democracy through this crisis, it is highly essential that the pub-

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[1] Member TAPPI, President of the Technical Association of the Pulp and Paper Industry and of the Kalamazoo Vegetable Parchment Co., Kalamazoo, Mich.

lic be adequately informed. Advertising experience for years has shown that it is not sufficient to just tell the public once what a problem is with the expectancy that they will understand it and be convinced.

All of our great programs of advertising in the past have taken into account the fact that people have to be told over and over and over again about the products that are being advertised, in order to have them understand and be convinced.

If we are to raise the morale of the people of this country and unite all the people of this Nation behind our war program, these same policies will have to be followed. With higher morale would come substantial increases in production and fewer interruptions.

Such a program offers the means of conserving the maximum degree of manpower in the country. A substantial increase in efficiency would result in greater production with fewer people employed, A general improvement in morale should accomplish this. Increasing uses of paper and printing in this direction would undoubtedly help with such a program.

Not only is the general public lacking in complete understanding of our national problems but we in the paper and pulp industry lack information about the nonessential uses of paper and the percentage involved in relation to our total production. Certainly more information in this direction would arouse a greater cooperative spirit within the industry in assisting with any curtailment program.

The paper industry is now operating on a curtailed basis and it has already contributed a great deal toward accomplishing the goals of a curtailment program.

### A Process of Slow Evolution

We wonder whether many within the industry, the public, and the government fully appreciate the changes that have already taken place. This evolution has proceeded slowly and has not attracted a great deal of attention.

During the year 1941 the entire industry operated at more than 100% capacity and large inventories of finished products were built up throughout the country. By the end of the year we had practically exhausted our supply of raw materials, and the industry was facing an extremely critical position. Intensive efforts were made to collect waste paper and all types and kinds of pulps were used in an effort to sustain this high rate of operation.

In the spring of this year inventories became saturated. Changes took place in the products that were being consumed. The demand for paper products decreased. The operations of the industry dropped to 80% which relieved the raw material situation and brought about a balance within the industry.

It would not be possible for the industry to resume this high rate of operation without quickly exhausting the supply of raw materials. The industry is now limited to approximately 80% of operation. It is probable that the supply of pulp will diminish during the balance of this year and during the year of 1943. Pulp mills are experiencing difficulty in obtaining an adequate supply of wood either because of lack of labor to cut the wood or because of curtailment in truck hauling.

As a result of this further curtailment the industry will probably be limited over the months to come and will probably not be able to operate at more than 70% of capacity by the middle of next year because of these natural restrictions.

Because of this situation, it is obvious that nonessential uses should be eliminated from our economy as rapidly as possible in order to conserve our supply of raw materials.

### Goals of Curtailment

A great deal of progress has been made in the conservation of manpower within the industry. A current analysis would probably reveal that 35 to 40% of the people engaged in the industry the first of this year have left either to join the armed forces or to take jobs in other industries more directly associated with our war program. The supply of men within the industry who are eligible for the armed services or who are capable of working on production lines is rapidly being exhausted. The paper industry has always been stable in its operations and there has been little turnover among its employees. As a result the average age within the industry is very high compared with any other type of manufacturing.

There are many men employed in the industry over 45 years of age who could not take a more active part in the war program than continuing to make the essential papers required.

The people who have been hired during the past year are generally those not eligible for the armed services. If they had been capable of accepting a war production job, they would certainly have taken that employment because the wages are substantially higher than those prevailing in the pulp and paper industry.

### Few Usable People Can Be Released

This process of turnover is continuing at a rapid rate. During the coming year paper and paper products will generally have to be made by people not eligible or available for other services. The industry will be able to continue on this basis.

A study of this situation might reveal that very few usable people can be released from the industry by curtailment. Inasmuch as practically every plant has such a nucleus or supply of ineligible labor, some consideration should be given to keeping as many of these plants operating as possible in order that the maximum amount of paper may be produced with labor that is not usable in other places.

The pulp and paper industry produces and consumes a substantial amount of power. It has been estimated that this might amount to as much as 8% of the power generated within the country. This should be carefully analyzed before concluding that any substantial part of this power can be made available for other purposes. A great deal of this power is generated from process steam which would disappear with curtailment.

Much of this power is generated in small plants with odd voltages and some of it is direct current. A complete analysis might show that not more than 10% of the power generated or used could be made available for other purposes.

There is a comparatively small amount of machine equipment existing within the industry that can be used for producing other commodities. Most of the machine shops which have been normally used for

repairs are now producing munitions of one kind or another. Where this has not been done a great many of the machine tools have been removed to other plants.

It would be extremely difficult to establish new industries within the buildings of the industry which could utilize the local power that is available.

The industry has cooperated intensively in the program of reducing its requirements of critical materials. A statement of the accomplishments along this line has not been made but would undoubtedly show that the industry has reduced more than 50% of its normal requirements of these materials.

Work is being done continuously in every plant in this direction and further reductions will be made.

Qualities of papers have been altered in order to release chemicals that have been needed for other purposes. Further curtailment within the industry will probably not release any substantial volume of critical materials.

The industry has cooperated in the program of conserving transportation. Cars are being loaded to full capacity and they are being turned over quickly at all plants. Here again an analysis would probably indicate that the industry has reduced its requirements of transportation facilities by probably 30%. This work is being carried on intensively and undoubtedly further conservation will be effected in this direction.

### No Business-as-Usual Policy

A review of the changes that have taken place during the past several months would certainly show that the industry is not following a business-as-usual policy, and that some of the criticism that has been directed at the industry is not justified in view of the tremendous changes that have taken place.

With all of these accomplishments, there is still much to be done. Some curtailment in the production of the industry can be made. Luxury and nonessential uses will have to be limited. Many new uses of paper products are developing which will be considered essential. With this change in the products that will be manufactured the actual percentage reduction may be small. Further efforts can be made by the industry to conserve manpower. If there is any unnecessary work going on within the industry, it will have to be eliminated. Working schedules can be rearranged so that every individual works 48 hours a week, even though the plant may be running on shorter hours.

More women can be employed by the industry to release men who can take other jobs. Each plant should critically analyze its work requirements and should rearrange the assignments so that everyone within their organization eligible for the armed services or for the production lines may be released.

### New Products

With all of this, the greatest job facing the industry today is that of developing new products which can be used as substitutes for other critical materials. Paper products will be developed to replace metal containers and the food supply of the country will be marketed. Food is becoming critical and must be conserved and protected in the best possible manner. Paper products will meet this responsibility and protect these foods until they are fully consumed.

The industry has always cooperated extensively in its research programs. It is not possible for the industry to make a spectacular announcement that the research facilities will be pooled for the common good of the country. This condition has existed for many years. The entire purpose of the Technical Association is that of sharing knowledge and experience for the good of everyone. Plants and processes have been open for public inspection.

A large group within the industry has financed and supported the Institute of Paper Chemistry which has carried on research work for the industry as a whole.

We have shared our knowledge and have pooled our research facilities. At this meeting we should make every possible effort to further this pooling process. It is our responsibility to make available our knowledge to everyone in order that we may most effectively help with the war program.

Likewise, it is not possible for the industry to make any spectacular announcement that it will pool the patents that are held within the industry for the good of the war program. There are very few restrictive patents existing within the industry. If there are any which could be pooled to the advantage of the public, I am sure the holders of these patents would be willing to make such an arrangement.

The pulp and paper industry is large and is made up of a great many small producing units, many of them located in small towns throughout the country. Converting such an industry over to a war-time basis requires many readjustments that are not present in some of our concentrated industries.

### Conclusion

Too extensive a curtailment program might seriously dislocate many of these communities which in turn might interfere with the war program rather than assist it. It is hoped that a sufficient amount of time will be allowed so that these adjustments can be made in an orderly fashion.

It is also to be hoped that more information will be spread throughout the entire industry about the problems of running it and the goals that are being set up for the industry. Certainly if the industry understands what is expected from it, it will respond with an enthusiastic spirit of cooperation to help accomplish these objectives.

Through all of these readjustments there is a great responsibility on the part of the managers of the industry to maintain a sound financial policy, and a responsibility to keep producing facilities intact.

When this war is over, there will be great demands placed upon the paper industry to meet the needs of the country in its rehabilitation program. The paper industry will have to supply the products that will help to rebuild our national economy.

Every effort put forth by management to protect the industry through this period is justified on a patriotic basis. True patriotism not only involves giving everything we have toward winning the war but also should consider the problems and facilities that will be required to help rebuild the world when the war is over. The postwar problems must be a part of the thinking of every patriotic citizen, so that the sacrifices we are making will not have been made in vain.

# The Role of the Technical Librarian in the Paper Industry*

By A. Catherine Davies[1]


## Abstract

*The functions of the well-managed technical library are described, and many sources of technical information are specifically mentioned.*

*Most research chemists are more highly skilled in laboratory technique than in library research. Library work should be in the hands of a trained librarian thoroughly familiar with research procedures and with pulp and paper chemistry. A person so equipped can make the library a great asset to research chemists and to the paper industry as a whole.*

*The librarian's duties may be divided into six main fields namely, books, pamphlets, periodicals, bibliographies, abstracts and indexes, and patents.*

*In the field of books, the librarian should recommend the purchase of books, and should catalogue effectively the fundamental texts for ready reference in all the subjects related to paper technology.*

*Pamphlets may be secured from manufacturers and government bureaus, and their subjects likewise effectively catalogued. Pamphlets are valuable because they contain a wealth of detailed current information.*

*Periodicals have by far the greatest circulation in the library, and the librarian's duties here comprise methods for making pertinent articles known and available to all possibly interested. The duties further comprise abstracting important domestic and foreign articles.*

*The intelligent use of printed abstracts and indexes is one of the most valuable activities of the librarian. Before any research projects are begun, a complete bibliography or literature review is imperative. No one is better suited to make or to aid in this search than the well-trained technical librarian. This service includes securing photostats, etc., of material not at hand in order to furnish complete knowledge of the literature on any given subject.*

*The value of patent collections maintained so as to be adequate to the interests of the parent company lies in keeping men informed on new developments in the industry, new kinds of and uses for paper, and improvements in manufacturing equipment and processes as well as helping to avoid infringements.*

*In eras of new products and rapid development, the technical librarian is essential in the personnel of the healthy papermaking organization.*


Although a war period is a period of extravagant waste, it is also a period of accelerated research culminating in a wealth of new products. This research can be simplified, and duplication can be prevented when industry uses the facilities of the special library, and more specifically, the services of the technical librarian.

Many pages have been printed urging research men to make use of the abundance of technical information available. This is sound advice, and it means effort, time, and equipment saved. Technologists should know what is and has been happening in their field of special activity. Most technical schools neither require nor offer courses in library research; hence research men know laboratory techniques much better than library techniques. As a consequence, they may find library work monotonous and have the costly tendency of ignoring it. The appropriate person for library research is the trained technical librarian.

This librarian is familiar with chemistry and chemical research procedures; he is acquainted with the technique of pulp and paper manufacture; he knows what can be found in the company library, what can be found in other larger libraries, and how to make the whole field of technical literature available to any member of the organization. Above all, the competent librarian has the reputation of being enthusiastic about dispensing valuable, helpful, and timely information. His main object is to conserve the energies of those whose work is largely concerned with the information available in the library. He is the person who can keep paper men informed on the recent pertinent developments achieved by others, and can keep the specialized men from losing sight of the broader field. Just as a trained mechanic tries to find and correct the troubles with your automobile, so the competent librarian seeks to grasp the details of the technologist's problem and give him aid. And just as you return to the mechanic for further repairs on your car, so the technologist returns to the competent librarian for further aid on his problems.

The technical librarian's duties fall naturally into six distinct fields: periodicals, books, pamphlets, abstracts, bibliographies, and patents. It is the aim of this paper to give some indication of the extent of each of these fields and the services the librarian can render in each.

## Periodicals

Probably the most useful, and certainly the most popular part of any technical library, is its periodical collection. This is true because periodicals contain detailed, not too general information, because periodicals contain practical, up-to-date information and because men are more likely to read periodicals than books or pamphlets.

No doubt all are familiar with the major pulp and paper periodicals in English: the *Paper Trade Journal*, containing the technical section of the Technical Association of the Pulp and Paper Industry; the *Paper Industry and Paper World;* the *Paper Mill News;* the *Pacific Pulp and Paper Industry;* the *Southern Pulp and Paper Journal;* the *Pulp and Paper Magazine of Canada; Paper-Maker and British Paper Trade Journal; World's Paper Trade Review;* the *Proceedings of the Technical Section* and also the *Technical Bulletin* of the *Paper Maker's Association of Great Britain and Ireland.*

The major annual "periodical" is the TECHNICAL ASSOCIATION PAPERS published by the Technical Association of the Pulp and Paper Industry (TAPPI)

*Presented at the Fall Meeting of the Technical Association of the Pulp and Paper Industry, Hotel Statler, Boston, Mass., Sept. 29-Oct. 1, 1942.

[1]Member TAPPI, Hammermill Paper Co., Erie, Pa.

and containing all the papers presented at the Fall and Annual Meetings of this organization.

Leading foreign periodicals include *Svensk Papperstidning, Papier Fabrikant, Zellstoff und Papier* and *Wochenblatt fur Papierfabrikation.* Leading periodicals in the field of industrial chemistry include *Industrial and Engineering Chemistry, Chemical Industries,* and *Chemical and Metallurgical Engineering.*

All the TAPPI publications, including the Data Sheets, Standards, Monographs, and Papermaking Abstracts, though not strictly periodicals, certainly should be included in the paper mill library.

It is in the field of periodicals that the technical librarian can be of particular service. His duties here are two-fold: to make pertinent articles known to all those interested, and to make information from foreign articles readily available.

The first duty may be fulfilled in a variety of ways. The librarian can look through the periodicals for articles of particular interest and add a "*see* page xx" after the appropriate names on the routing slip. A second plan is to send out every week to the laboratories, sales, and engineering personnel a list of all articles in all periodicals received that week with a square opposite the title of each article. This square is to be initialed by anyone wishing to have the periodical routed to him. This second plan enables the librarian to know the major interests of the personnel but involves messenger service which may be rather slow. One company leaves all new periodicals in a certain location for a week and attaches to the front cover a blank sheet of paper on which requests for further use of the periodical may be placed. In this way, periodicals are available to all as soon as they are received and routed only to those who want them for more complete study. This method has the great advantage of bringing men into the library oftener, but the disadvantage of never reaching the personnel who have not yet acquired the library habit. A fourth plan for making sure all men know of recent advances in the industry is for the librarian to present verbally short abstracts of all pertinent articles at seminars of department heads and others. An adaptation of this plan is the preparation of written abstracts of important articles—these abstracts to be sent to all who could be interested in the hope that the abstracts will be read by the majority of the personnel. These last two plans have the advantage of including the contents of foreign periodicals which might easily be overlooked in the first three.

Although the librarian may be called upon to translate a foreign article, more often his duty will be merely to "skim" the article. To get the meaning of nearly all of the foreign words without translating into fluid English is more usual than to prepare the polished translation. Presupposing a basic knowledge of the major scientific languages, the ability to abstract without literally translating is not too difficult to acquire. It appears to be founded largely on experience, and a reasonably good knowledge of grammar, plus a familiarity with the subject matter. Condensations of materials so prepared should be included in the last two plans outlined in the paragraph above.

### Books

Books, contrary to popular opinion are neither the most important nor the most popular part of the technical library. Their purpose is to supply fundamental broad texts in the field related to pulp and paper technology. They are, however, often several years behind the latest developments and usually include only the broad concepts. Ideally, the library contains a rather comprehensive and general collection of books dealing with cellulose, pulp and paper, chemistry in many of its branches, physics, engineering, color, printing, mathematics, plastics, popular science, production techniques, and economics. Detailed texts on specific subjects are included only if widely accepted and if not prohibitively priced. New editions of basic texts are bought when possible and the old editions catalogued but relegated to storage space.

The duties of the librarian in this field fall into two branches: that of helping to choose books, and that of cataloguing effectively the books already a part of the library collection. Quite recently, West published an article on basic books for the paper mill library (Paper Maker's Book Shelf, *Paper Industry,* February 1942, Vol. 23, p. 1085). Crane and Patterson have an excellent book, *Guide to the Literature of Chemistry* (John Wiley & Sons, Inc., N. Y. 1927), Soule also has an excellent work, *Library Guide for the Chemist* (McGraw-Hill Book Co., Inc., N. Y. 1938) and at the Buffalo meeting of the American Chemical Society in September of 1942, he presented a paper (Frozen Assets—Putting Chemical Knowledge to Work) on the chemical library. M. G. Mellon has an excellent book *Chemical Publications, Their Nature and Use* (McGraw-Hill Book Company, Inc., New York 1940). Two other excellent sources are the article by Molstad in News Edition (ACS) for April 10, 1938 (vol. 16, no. 7:206-14) and the article by Bailey in the *Paper Trade Journal* 109, no. 22:97-104 (Nov. 30, 1939) All of these should prove exceedingly helpful in guiding the librarian in his choice of technical books.

Often it is helpful to know what other libraries have in their collections. The Institute of Paper Chemistry has published a catalogue of its library. This catalogue has been sent to member mills and can also be obtained from the Library of Congress and the New York Public Library.

When the question of selecting newly published books presents itself, there are available reviews which may help to evaluate the book. These may be found in such journals as *Paper Trade Journal, Chemical and Engineering News, Chemical and Metallurgical Engineering, Chemical Industries, Paper Industry, Science News Letter,* and *Modern Plastics.* Ten times a year, the Special Libraries Association (31 East 10th Street, New York) publishes the *Technical Book Review Index* ($7.50 a year) which is a series of quotations from book reviews printed in trade and technical journals. An excellent list of technical books appears in the Chemical Engineering Catalogue book section (pp. 1157-1214 in the 1941-42 issue). Almost all publishers will send new books on ten-day approval.

The actual purchasing of library material should be done by the librarian, but its choice should be dependent upon the opinions of the library committee, composed for instance of the heads of the engineering, physics, chemistry, and production departments, together with any others particularly qualified by interest or experience to serve on such a committee. This committee would act on suggestions and recommendations of the technical librarian and on the valuable suggestions which often come from specialists in the organization.

It is important for the librarian and the library committee to remember that the technical library may also serve the nontechnical millman, the salesman, and the ambitious office boy. A corner of every library should be devoted to appropriate books for these people. The man from the mill is likely to feel awkward and embarrassed in the technical library; and the librarian should make unstinted effort to encourage these men to make further use of the collection.

One measure of the usefulness of the library is the completeness of the card catalogue. Particular care must be taken to index books by their actual subjects as denoted by the table of contents rather than by title words or actual titles. Cataloguing should be flexible enough to satisfy the imagination of any novice. Either cross indexing or the use of additional subject cards, or both, will contribute to an efficient card catalogue.

### Pamphlets

Though often overlooked until recently, a good pamphlet collection may prove a useful supplement to the book collection. Pamphlets from manufacturers and from state and federal bureaus afford an inexpensive method of building a library of contemporary technical information. The fact that some pamphlets contain advertising in no way detracts from their usefulness in supplying details of the newest processes and latest improvements in mill machinery. Because one of the prime features of a pamphlet collection is as a source of current information, it is one of the duties of the collector to keep only the up-to-date pamphlets. A resorting is advised at least once a year and out-of-date pamphlets are put in storage space.

Usually, pamphlets, are kept in vertical files and are as readily accessible to the company personnel as are the books. An effective card catalogue of pamphlets is as imperative as a good card catalogue of books or patents.

Many periodicals list new pamphlets offered by manufacturers. Interested people can find these offers and take advantage of them. Good lists of pamphlets offered by manufacturers are published each month in such periodicals as *Chemical and Metallurgical Engineering, Chemical and Engineering News, Chemical Industries,* and *Paper Industry.*

There are government pamphlets available on almost all subjects related to pulp and paper. These may be purchased at nominal prices from the Superintendent of Documents at the Government Printing Office. If the pamphlet is free, it is secured directly from the issuing bureau. The Forest Service of the U. S. Department of Agriculture (Washington) issues pamphlets on wood; the U. S. Forest Products Laboratory (Madison, Wisconsin) issues pamphlets on the utilization of wood as a raw material and on new sources of pulp. For material on paper testing and the relation of paper to printing, there are reprints from the *Journal of Research* of the National Bureau of Standards (Washington). Pulp and paper statistics are available from the Bureau of Census, the Bureau of Foreign and Domestic Commerce, and the Tariff Commission, all in Washington. Most government bureaus print at frequent intervals lists of their publications. These lists are available for anyone desiring them. They are compiled in the *Monthly Catalog of U. S. Public Documents* and the *Monthly Check-List of State Publications.* The periodical *Chemical and Metallurgical Engineering* has an excellent section listing Government publications.

For Canadian publications on pulp and paper, information is available from the Director, Pulp and Paper Research Institute of Canada, Montreal; or from the Superintendent, Forest Products Laboratories; Lands, Parks & Forests Branch; Department of Mines and Resources, Ottawa, Canada.

There are two more sources from which information in pamphlet form may be obtained. Often, house organs publish a wealth of technical information long before it is available elsewhere. A complete catalogue of house organs is included in the Technology Reading Room of the Carnegie Library of Pittsburgh. The second additional source is comprised in theses, reports, and publications of various colleges and universities doing work on pulp and paper. These include the publications of the Institute of Paper Chemistry in Appleton, Wisconsin; the New York State College of Forestry in Syracuse; the University of Maine at Orono; the University of Washington at Seattle; the University of Idaho at Moscow; Washington State College at Pullman; and the Massachusetts Institute of Technology at Cambridge.

### Abstracts and Indexes

If one were to maintain a library with but one reference publication, that publication would probably be an abstract journal. If one has a limited amount to spend on literature of any sort, the field may best be covered at low cost by these publications.

Since 1907 *Chemical Abstracts* has held a preeminent position in this field. At the present time, over 2800 American and foreign periodicals, as well as all United States and foreign patents related to chemistry, are abstracted. Section 23 deals with cellulose and paper. In addition to these abstracts, at the end of volume 30 (1936), there are over 100 pages of invaluable information. Here may be found the names of all periodicals abstracted, together with the abbreviation of the title, the name and address of the publisher, the price and frequency of publication, and the number(s) of the 1936 volume(s). In addition to this information, these pages give the names of all libraries in the United States, Canada, and Hawaii which regularly receive these periodicals, and the facilities for photostating and translating which these libraries offer.

A fairly recent publication, but already recognized as outstanding, is the *Bulletin of the Institute of Paper Chemistry.* The abstracts here deal primarily with pulp and paper and do not include patents. The newest member of the abstract field is TAPPI's Papermaking Abstracts which covers the field of patents as well as periodical literature. TAPPI abstracts previous to 1941 have appeared in *Paper Trade Journal* since 1922 and may be found by looking in the indexes of the Technical Section. Since 1918 paper abstracts have also appeared in the *Pulp and Paper Magazine of Canada.* British abstracts from 1841-date are available in the *Journal of the Chemical Society* and from 1882-date in the *Journal of the Society of Chemical Industry.* This latter journal has included British patents since 1901 and United States, German, and French patents since 1916. Since about 1925 abstracts have been issued under the title *British Chemical and Physiological Abstracts,* parts A and B. The *Journal of the Textile Institute* also publishes abstracts of articles and patents pertinent to its field.

French abstracts have been published in the *Bulletin de la Societe Chimique de France* since 1858.

German abstracts date back to 1830 when the *Pharmaceutisches Centralblatt* was initially published. From 1850-56 the abstracts were continued under the name *Chemisches Pharmaceutisches Centralblatt.* Later the "Pharmaceutisches" was dropped and from 1897 to date the title reads *Chemisches Centralblatt.* Prior to 1918 abstracts were also carried by *Chemische Zeitung and Zeitschrift für Angewandte Chemie.*

Often, an abstract can substitute for a whole article but frequently it is necessary to secure the original publication. Furthermore, it is often necessary for the librarian to secure a back copy, a photostat, or mircofilm of the article from some outside source. It is in this connection that the knowledge of the collections of nearby public libraries is quite convenient. It is also in this connection that membership in the Special Libraries Association is especially helpful since union lists of periodicals received in other libraries are published by this organization.

If the librarian wishes to borrow a book or periodical from any of the 255 libraries listed in *Chemical Abstracts,* he must first ascertain the "lend-lease" policy of the library concerned, then write them, stating clearly the exact title and date of the article desired together with a statement that he will be responsible for its safe return. The H. W. Wilson Company (950-72 University Avenue, New York) can usually supply back numbers of periodicals through its periodical clearing house. The library of the Mellon Institute (Pittsburgh) is particularly complete and is among those willing to lend periodicals to research libraries. Interlibrary loans, however, are considered a last resource when other methods, such as photostats and microfilm, are not feasible; because the loan of such material weakens the resources of the lending library. Photostats may be obtained from libraries so listed in *Chemical Abstracts* (vol. 30). The geographical distribution of these libraries may help decide to which one of these institutions the librarian should send his request. Microfilm may be obtained at cost from the Bibliofilm Service, Library, of the Department of Agriculture, Washington, the New York Public Library, The Library of Congress, and the Army Medical Library.

Translations are offered by 10 of the 255 libraries listed in *Chemical Abstracts.* The Hooker Scientific Library, Central College, Fayette, Missouri, makes a specialty of current literature translations.

Indexes are also quite helpful in making preliminary searches and in finding exact titles of articles, though they do not contain abstracts. The Industrial Arts Index published each month is the technical counterpart of Readers Guide and has been indexed annually since 1912. The complete system of cross-indexing and the cumulative volumes make this helpful.

Especially helpful to the engineering department is the Engineering Index which has covered articles in this field since 1884. Independently subscribed to, but directly connected with *Chemical Abstracts* is the *Decennial Index of Chemical Abstracts.* This index lists all articles, books, and patents abstracted in this periodical in four ways: by author, subject, patent number, and formula.

### Bibliographies

Bibliographies are excellent source books for any library. It is almost as important to know where to find information as to know the information itself. Outstanding in this field is the TAPPI *Bibliography of Paper Making and U. S. Patent List.* This work is in two volumes from 1900-1928 and from 1928-1935, and has been published annually thereafter. Another useful work is the *Bibliography of Bibliographies on Chemistry and Chemical Technology* (West and Berolzheimer, National Research Council, Washington, 1925). This work covers 1900-1924; it has been brought more nearly up to date by Bulletins 71 and 86 which cover the years 1925-1932. References cited in many comprehensive articles on technical subjects constitute good bibliographies. The periodical *Chemical Reviews* is particularly good in this respect. The Science-Technology group of the Special Libraries Association prepares timely bibliographies for its members. The quarterly *Bibliographic Index* (H. W. Wilson Company) contains a fairly large section on technical subjects.

If, in making a literature search, it is found that there is no bibliography available, it is the duty of the technical librarian to prepare one. In fact, this is one of the principal duties of the librarian. A complete bibliography of all articles published on any given subject is rare, but bibliographies of articles for a limited time, say the last fifteen years, is quite common. The value of a bibliography is not always determined by its length—it should be critical and selective. Each entry should include subject, author, date, and some indication of the completeness of the article. It is helpful also to give some indication as to whether the article is on hand or if there must be a photostat or microfilm purchased. Other annotations add to its usefulness. Any bibliography should include entries from all the other five divisions of the library. It should indicate the extent of the search, the years covered, and the source of information set forth.

The next step beyond a bibliography is the literature review. The literature review is a necessary prerequisite for any research project. It enumerates the principle articles, describes the extent of previous relevant research, and defines the present status of the problem; it often suggests new projects or new approaches to old projects. It implies having read abstracts or original articles in foreign periodicals, as well as those printed in English. It implies knowing in detail all the work done to date and the apparatus needed for it. It can be prepared by the research chemist from the bibliography prepared by the librarian or it may be prepared by the librarian himself, provided he has the necessary subject background.

### Patents

A good technical library for the paper industry should contain enough patents to keep the personnel well informed on current advances in mill machinery, new processes, new kinds of and new uses for paper. The fact that 30% of all patent applications are later abandoned because of prior claim speaks volumes in favor of a thorough patent search before prolonged work on any new process.

The selection of patents is probably best accomplished by scanning the *Official Gazette* of the U. S. Patent Office each week, and ordering those patents related to the paper industry. They are usually filed numerically in vertical files and a card catalogue kept of subjects, inventors, and companies owning patents on any papermaking process or invention.

United States papermaking patents granted between 1922 and 1926 are abstracted in the *Technical Association Papers* for the appropriate years. All those granted after 1930 have been abstracted by the TAPPI Abstracts and Bibliography Committee, and beginning with 1935 have been included in the annual TAPPI *Bibliography of Paper Making and U. S. Patent List.* TAPPI abstracts of U. S. and foreign patents have appeared in the *Paper Trade Journal* or *Papermaking Abstracts* since 1922. British patents since 1901 are abstracted in the *Journal of the Society of Chemical Industry. Chemical Abstracts* carries abstracts of current United States and foreign chemical patents and, furthermore, tells in volume 36 p.ii from whom and at what price they may be obtained. However, under present war conditions, it is cheaper and faster to buy from the United States Patent Office photostats of foreign patents.

United States patents are obtainable from the Commissioner of Patents, Patent Office, Washington, at 10c a copy, regardless of length. The *Official Gazette,* published each week, prints important claims of all patents granted that week. The Yearly Index gives information on any patent granted during the year. Other publications of the Patent Office include the *Manual of Classification* and the *Annual Report of the Commissioner of Patents.*

### Other Duties of Librarian

There are a few duties of the technical librarian which do not readily fall into the six divisions of the library. He may perhaps supervise the company files on research work but in any case he should be thoroughly familiar with their contents. Although some of this material may be somewhat confidential, the major portion of it is of interest and value to the entire personnel.

The librarian should publish and circulate a list of all material added to the library during stated intervals. This list is quite likely to attract the attention it well deserves.

Another valuable contribution is the compilation of reading lists or courses of study for nontechnical men such as salesmen, mill men, or production men. The librarian can assist greatly in planning vocational training courses.

One of the foremost duties of the librarian is that of advertising his services. He must cause the company personnel as a whole to realize the wisdom of the investment made by the company not only in collecting library material but also in furnishing someone trained in the details of handling it and trained in the details of paper and technology.

As the volume of printed literature in science and technology increases, the research worker must rely more and more upon the services of the technical library and its librarian. It is in this service that the capable technical librarian can contribute greatly in the maintenance of his company's leadership in the industry.

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# Military Ration Container Problems*

By Robert R. Melson[1]

### The Army and the Paper Industry

Many of you have been at the Subsistence Research Laboratory of the Chicago Quartermaster Depot on one or more occasions to offer your practical experiences and the facilities of your laboratories to aid the war effort. Some of you have had questions in mind, and others specific problems on which you wished to work. The pulp and paper industry has aided in the solution of many of the Army's packaging problems. Its spirit of cooperation has been gratifying. However, no long range development program has been undertaken with the entire industry up to this time.

In talking with Mr. R. G. Macdonald before the meeting, he stated that the chief justification for this gathering was that, in a measure, it would promote the industry in aiding the military forces. With this in mind, I have come to this meeting with a number of problems which I intend to present to you, one at a time, for your suggestions, criticisms, and future consideration. After we take these problems up, I want you to feel perfectly free to ask questions in the question period.

The Utopian world, from the viewpoint of the pulp and paper industry, might be one in which all manufactured products were packaged in materials originating from pulp and paper. Although this state of being may never be fully realized, it is impossible to tell at what moment any one class or type of products might be transferred into packaging materials produced solely by your industry. Therefore, I am going to present approximately a dozen problems, each one of which could theoretically have a perfect solution in pulp and paper materials. Some of these problems are pressing at the present time. Others are merely possibilities which we might be called upon to solve at some future date. In order to maintain uninterrupted supply lines to the boys at the front, and be ready for any eventuality, it is felt that advance information on these subjects should be obtained. Time for meditation is short once a direc-

*Presented at the Fall Meeting of the Technical Association of the Pulp and Paper Industry, Hotel Statler, Boston, Mass., Sept. 29-Oct. 1, 1942.

[1] Captain, Quartermaster Corps, U. S. Army, Subsistence Research Laboratory, Quartermaster Depot, Chicago, Ill.

tive is received from the office of The Quartermaster General.

### Army Problems

Although most of you have a rough idea of the requirements for packaging the Army's food, I would like to repeat briefly the severe conditions under which our packaging materials must perform, in order that you will have it fresh in your minds. Packaging for the Army's rations must withstand temperatures from —20° F. to 130° F. or higher. Shipping cases of food may be unloaded from ships into a surf or on wet beaches and allowed to stand from one night to the next, at which times they may be subjected to tropical rains. Subsistence stores are subject to being transferred several times and the handling usually will be rough. Packaging materials must withstand the very high humidities of the tropics without absorbing moisture and losing their rigidity or tensile strength, having the seams open, or without transferring an excessive amount of moisture vapor. Infestation by insects and damage by rats also threatens. The Quartermaster Corps is called upon to have huge supplies of foods in readiness at all times, which necessitates long storage periods in tropical climates, awaiting the eventuality of operations in that area. Therefore, we require that the Army's food shall be packaged such that it will stand the tropical climates for at least a year. You are invited to take this viewpoint in considering the problems we are about to discuss.

There is one point that I wish to call to your attention specifically. In commercial practice, products are packaged such that only a very small percentage of failures occur. The percentage of failures is commonly reduced to a point where it is more economical to accept the failures than to increase the packaging costs to a point where perfect protection is provided. However, this is not true of Army packaging. As a rule where the conditions are most severe the food supply is of the greatest importance. For instance, in a difficult landing operation, where the greatest extremes in packaging and packing are required, the food supply is of paramount importance. Although only a small percentage of the total is used in this manner, if it continually failed, our total effort would be greatly jeopardized. In other words, that small percentage, which in civilian life is permitted to spoil under severe conditions, in Army life is the most important.

#### Shipping Cases

We will now take up the problems as I have them outlined:

1. The first concerns shipping cases. In our pulp and paper industry Utopia, we want a fiber box which is equivalent to a wooden box. This may be of the current weatherproof solid fiber type or some radical departure may be developed. It should be noted that the Quartermaster Corps has no preference as to construction or composition. It is the performance of the shipping case in overseas' operations that is important. At the present time, the weatherproof solid fiber shipping case as manufactured by the pulp and paper industry does not answer the demands of the Army. We are experimenting with fiber cases employing asphalt barriers and asphalt impregnated sheets. Testing of these materials has not progressed very far as yet. Weatherproof cases employing Sisalkraft sheets in the outer liners have been tested. These are promising and will, no doubt, be used. However, production is rather limited at the present time. The Quartermaster Corps is asking the paper industry for a substitute for wooden boxes which is equally as *strong*, is *tougher*, and is as *resistant* to water and *high humidities* as a nailed wooden box. What do you have to offer?

In addition to the shipping case just discussed, the Quartermaster Corps has an application for a watertight shipping case which will stand submersion without leaking. For the purpose of discussion, we will say that this case must be watertight for 60 hours when submerged one inch below the surface of the water. Of course, it is easier to make a shipping case watertight immediately after sealing than to make one that will be watertight after it has been shipped several thousand miles. Therefore, we might suggest twenty-five or fifty falls in a 7-foot drum before making the submersion test. Up to date, we have tried several types of packages:

(a) Weatherproof solid fiber cases and cases embodying asphalt barriers have been sealed with asphalt and the manufacturers' joint sealed with asphalt. These cases were watertight for a period but involved use of hot asphalt and considerable labor. Water wicked in through the edges of the cases.

(b) We have tested cases which have been lined with Sisalkraft. These were sealed by means of waterproof tape and hot asphalt. The finished cases were watertight but the methods of sealing were rather laborious.

(c) A sealed case which is first dipped in wax at a high temperature to obtain impregnation and then dipped a second time at a lower temperature to obtain a continuous wax coating has been investigated. This sealed carton is then placed inside of a wooden box. This is required to protect the corners of the waxed case from damage. Now, we are open to suggestions on methods of closing a watertight shipping case.

#### Moisture-Vapor-Resistant Packages

2. I wish to bring up an old question which has been discussed and rediscussed many times. That is, the development of moisture-vapor-resistant packages. The Quartermaster Corps' Subsistence Research Laboratory has several applications for moisture-vapor-resistant packages. These might be of three general sizes: The unit serving, ranging from 2 to 6 ounces, the medium sized issue, holding from 1 to 4 pounds, and the bulk issue, ranging from 7 to 100 pounds. These packages will be used for protecting such products as Soluble Coffee, Lemon Powder, Dehydrated Vegetables, Dehydrated Soups, Powdered Milk, Powdered Eggs, Flour, Cereals, Dessert Powders, and numerous other items. Some of these items have been previously packed in metal for export. These products require a high degree of protection from moisture vapor. The best packaging films available are none too good. At the present time, we specify a package for Dehydrated White Potatoes, Sweet Potatoes, Beets, and Rutabagas, which consists of an inner liner of laminated glassine, a second bag consisting of cellophane laminated to lead foil in turn laminated to asphalt impregnated kraft, which is inserted in a solid fiber carton; two

such units are then placed in a wooden box. This packaging is considered satisfactory as designed. However, we feel that there is room for improvement, and there are a great many other products to which flexible packaging materials could be adapted. We have tested a majority of the films available for their moisture-vapor transfer rate. We are not asking for a retest of these films or merely a new combination of the old films. What we want is a new material or a substantial improvement on the old one, which will stand head and shoulders above the films commonly used today. We are asking you, as the men who generate the new films, to produce a product that will meet our severe requirements.

### Packing Dried Fruit and Cereals

3. Many of the products which the Army buys, such as flours, cereals, dehydrated fruits, and other materials require protection against infestation from the many insects of the tropics. At this date, we have only the metal cans, glass containers, and barrels, which we feel are proof against insect infestation. We desire packaging films or materials which will give a high degree of protection against infestation. It seems as though this is a problem for the pulp and paper industry to solve if their products are to gain favor for export purposes.

4. We have a problem today of packaging dried fruits. These fruits must be packaged in a liner which will withstand a product of very high moisture content without being adversely affected. In this liner must be further packaging which will prevent the transfer of moisture either in or out of the package. One of the chief problems of dried fruit packaging for shipment to warm climates is protection from infestation. At the present time, we have no satisfactory method of preventing insect infestation without the use of metal. The packaging of dried fruit is also closely associated with its processing. Hot pack fruits are filled in the cartons when hot. This, in a measure, will pasteurize the packaging material on the inside. However, the packaging material must in turn be able to withstand the heat (160° F.). Our present plans call for either filling the fruit into a multiwall bag, which lines a fiber carton or of filling a glassine lined carton, sealing it, and placing this inside of a protective bag. We have no specifications on packaging dried fruit in flexible packaging materials but are considering them now.

### Special Types of Paper Needed

5. Another problem with which we are confronted, which may be more acute in the future, is to obtain a wax paper which is flexible at minus 20° F., will not be excessively tacky or flow at 130° F., and which has a reasonably high moisture-vapor transfer resistance. At the present time, a mixture of 50% microcrystalline wax and 50% fully refined paraffin is being used on one ration. A paper waxed with this mixture is difficult to handle on automatic machinery, because it is too tacky at the higher temperatures. However, when the mixture is reduced to 30% microcrystalline and 70% fully refined paraffin, the wax melts and disappears from the surface of the paper at 130° F. We are in the market for an improvement in this type of product. There are conflicting statements abroad as to the availability of fully refined paraffin in the coming months. Therefore, we feel that we should hold outselves in readiness to initiate substitutions, if it is found necessary.

6. Watertight and water-resistant papers are of interest at the moment. It is entirely feasible that we might have a call for such a product at any moment. Therefore, we should like to have on file several water-resistant sheets which might be employed. Effectively sealing such papers on a production line is a challenge to industry.

7. Up to the present time, we have had little difficulty in obtaining papers which were sufficiently greaseproof for the assignments given us. Recently, interest has been shown in the packaging of large units of shortening in flexible packaging material. If such a project should become increasingly interesting, the Army might be called upon to package shortening, using flexible packaging material. This would necessitate a film that would prevent the transfer of hydrogenated vegetable oils through the package for periods of nearly a year with temperatures ranging as high as 120° F. for short periods. Secure seals with adequate strength would also be required.

### Transfer of Oxygen

8. Little work has yet been done on the transfer of oxygen through flexible packaging films. In connection with packaging of shortenings, whole milk, and eggs, the degree of oxygen transferred through films is of considerable inportance. It seems desirable that some information be built up on the rates of oxygen transfer through various films. There is no immediate application for this information. However, in the future, we will probably require such an investigation.

### Fiber-Bodied Cans

9. Many items are now being packaged in fiber bodied cans in lieu of metal. The Quartermaster Corps has specifications covering four types of fiber cans. The bodies of these cans consist of several layers of asphalt between asphalt-impregnated kraft paper. The can liners are varied, depending on the products to be packed. Although these cans are quite good, we feel that there is still room for improvement in the moisture-vapor protectiveness of the body and especially the tightness of the seam on the ends.

### Sanitation

10. In any area occupied by a large number of people, with many of them eating in the open, with garbage disposal difficult, and their attention on other subjects, rats will be a plague. Therefore, it is desirable, if possible, to employ shipping cases which are proof against rats. This problem is difficult to solve, and any good suggestion will be welcome.

## Conclusion

It must be remembered in developing new packaging materials, that industry must utilize its present machines tc the fullest extent. Therefore, new packaging materials must be of such a nature that they will be adaptable to present packaging equipment.

During our discussion many questions have undoubtedly arisen in your minds which have not been covered. These I'll be glad to answer in the question period. I would like to invite you to suggest possible problems in which you think we might be interested and which are pertinent to this group. I will try to tell you the present status of such projects or indicate the desirabilities of work on such a project.

# IMPORTS OF PAPER

## NEW YORK IMPORTS

WEEK ENDING OCTOBER 24, 1942

SUMMARY

Newsprint .....710 rolls

NEWSPRINT

——, ——, ——, 420 rolls.
——, ——, ——, 290 rolls.

COTTON LINTERS

Lush Cotton Products Co., ——, ——, 952 bls.

BONES

——, ——, ——, 3036 bags.

## Girls Replace Men at Scott Plant

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., October 26, 1942—New occupations of American women afford the most striking evidence of the still incomplete social revolution wrought by World War II, and in this connection the paper industry is no exception. Girls are rapidly taking the place of men in the various production departments of Scott Paper Company, as well as in the office departments, thus making available more manpower for the service and for vital war industry jobs, Harry Pardee, public relations executive of the Scott Company, said this past week. While such office departments as accounting, credit and purchasing have always been staffed by women, quite a number of positions in these departments were occupied by men, and these are being filled by women for the first time in the company's history.

The demand for manpower in the armed forces has taken an unusually large number of Scott Paper employees from every department, according to Mr. Pardee, and instead of going into the labor market for other men to replace those that have left for service, the company has made a careful study of the physical requirements of each job, so that wherever possible women can be employed to carry on the production program.

The laboratories, testing station and the factory pulp preparation department are three sections of the plant proper where women are successfully doing work that was formerly carried out by men. The finishing department, which always employed some women, but where the men formerly were in the majority, is now staffed by a majority of women, and the number of women in this important department is increasing every week.

Expanded industrial activity has caused greater demand than ever for Scott Paper Company products, according to Mr. Pardee, and the Chester plant is on a 24-hour, seven-day-a-week schedule. The 11:30 at night to the 7:30 in the morning shift is now known as the "MacArthur Shift," and the departure of men for the armed services made it necessary for the company to ask for women volunteers to "man" the machines on this shift. Twelve girls from the other shifts immediately volunteered and this shift is now fully staffed, with new girls being added every week.

The operators of the paper machines are still men and they include older men with specific skills that have been acquired over the years. It is likely that some of these productions department jobs may have to be taken by women, and the Scott training program is now considering this probability.

## Michigan Alkali in Scrap Drive

Michigan Alkali Company on October 9 had turned in 3202 tons of scrap metal in a concentrated drive staged by the company in association with the Industrial Salvage Section of the Detroit office of WPB. In addition, 20 tons of industrial rubber have been salvaged under the direction of the well organized scrap committees of these J. B. Ford family owned plants at Wyandotte.

From March 1, 1942, to October 9, 1942, the amount of Michigan Alkali Scrap—including that from Alpena Quarries—totals—

| | | |
|---|---|---|
| Cast iron | 410 | tons |
| Steel | 2759 | tons |
| Galvanized sheet | 27½ | tons |
| Rubber | 20 | tons |
| Copper | 5½ | tons |

From January 1 until the middle of September, the Michigan Alkali turned in an average of 290 tons of scrap per month. In the past three weeks, when the concentrated drive began, over a thousand tons of scrap metal have been reported. The drive is continuing, and estimates concerning the amount of iron and steel scrap still available vary from two thousand to four thousand additional tons.

Plant and purchasing executives have formed a Board of Review for "border line" cases. Just three questions are asked: 1—Can the metal or equipment be used for necessary plant replacement? 2—Can the metal or equipment be used for necessary "stand-by" purposes? 3—Can some other manufacturer use the equipment to advantage?

If the answer is "No," on all three counts, the decision is "Scrap It." In normal times but a small percentage of this 3222 tons would have reached the scrap pile, and would have been held by the company, as pipe and tank equipment is constantly in demand.

That the policy of The Michigan Alkali Company is working, is evidenced by the wide variety of equipment which has been scrapped. Listed among the equipment scrapped are the following—Cement Kiln, Steam Shovels, Cone Bottomed Tanks used in calcium chloride manufacture, Wickes Vertical Waste Heat Boilers, Caustic Tanks, Soda Ash Packing Machine, Copper Wire, Rubber Conveyor Belts, Rubbed Gaskets, and Westinghouse Engines formerly used on the boats of the Wyandotte Transportation Company.

## Boston Demand More Active

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., October 26, 1942—There was more activity in the paper market recently, both among manufacturers and merchants. Part of the increased activity is ascribed to the pending and possible legislation in regarded to 10 per cent reduction in production of mills, based on the production for the eight weeks ending October 3. In the trade, such legislation is not favorably regarded, because the usual production during August and September has been the lowest of the year for a considerable period, at least. As is undoubtedly well known, the order was ready for ratification, but was held up.

Another reason given for stimulation of business was the fact of the ruling in regard to whole carload lots.

# New York Paper and Pulp Market Review

## WPB Restricts Wood Pulp Production of Three Tacoma, Wash., Mills—Allocation Order Prohibits Normal Shipments To Midwest and Eastern Markets—Waste Paper Market Dull and Prices Soft.

Office of the PAPER TRADE JOURNAL.
Wednesday, October 28, 1942

Increased sales volume in many major grades of paper continues to be reported by a relatively larger number of manufacturers' representatives, jobbers, and general paper merchants this week. In this and in other large markets, notably in the midwest, the upswing in buying is attributed in substantial part to replenishment of inventories, through fear of shortages which have been well publicized, based upon plans for concentration of industries to conserve manpower, transportation and other factors entering in war production.

The index of general business activity for the week ended October 17, declined to 129.8%, from 130.5% for the preceding week, compared with 127.1% for the corresponding week last year. Paper board production was 2.4% higher.

Paper production for the week ended October 17 was estimated at 89.6%, compared with 105.5% for 1941, with 87.5% for 1940, with 98.6% for 1939, and with 83.8% for the corresponding week for 1938.

Paper board production for the week ended October 17, was 79.0%, compared with 98.0% for 1941, with 78.0% for 1940, with 84.0% for 1939, and with 70.0% for the corresponding week for 1938.

### Pulpwood

The Director General for Operations of the WPB, issued October 19, Part 3113—Pulpwood, of General Preference Order M-231. This order provides that supplies of pulpwood may be allocated, as conditions may warrant, directs that holders keep a reserve supply for allocation, and defines direct deliveries and receipts, and limits uses of pulpwood. Mills are required to report on Form PD656, due November 5, 1942. Mills in Oregon and Washington will continue to use Form PD661.

### Wood Pulp

The supply situation in bleached sulphite and sulphate pulps continues very tight, with practically no tonnage in these grades available. A decline in groundwood is also reported as more sharply limiting supplies. Prices are unchanged.

Schedule 1 to General Preference Order M-251, restricts the operations of Pacific Coast pulp mills, as a conservation measure to meet the problem of manpower and urgent need of lumber for war uses. To safeguard the production of high alpha and dissolving pulps, for nitrating, rayon and photographic films, deliveries of pulp from the following Tacoma, Wash., mills are affected: St. Regis Paper Company, Scott Paper Company, and Rayonier, Inc. The order becomes effective November 1, 1942. By this action it is expected that 1,000 men will be released for employment in war industries.

The allocation of wood pulp order, prohibits all shipments to markets in the Midwest and East for the next two months, from November 1. It permits Eastern shipments only of high alpha pulps to the rayon and ordnance plants. This order is explained in Information Bulletin No. 23, issued September 28, 1942, by the Pulp and Paper Branch, War Production Board, Washington, D. C.

### Rags

More interest is reported being taken by buyers in new cotton cuttings this week. Prices are firmer but no important changes have been reported at this date.

### Old Rope and Bagging

Mill buying of old No. 1 Manila rope continues steady at the OPA ceiling price of $115 per ton. Demand for strings and threads is steady with prices well maintained.

Trading in scrap bagging is reported slow. Prices are soft and of a nominal nature.

### Old Waste Paper

Mill buying of paper stock is reported light. Supplies are in excess of current demand and prices are relatively low and soft. Sales of No. 1 mixed paper at $8 per ton have been reported.

### Twine

Moderate demand for some major grades of twine rather widely reported at this date. Prices are well maintained and no important changes have been reported during the week.

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## Huyck Employees Donate Books

[FROM OUR REGULAR CORRESPONDENT]

RENSSELAER, N. Y., October 26, 1942—Employees of F. C. Huyck & Sons have donated a large number of books and games to the library of the Blytheville Flying School at Blytheville, Ark., where Captain Winthrop P. Stevens, former personnel manager, is stationed. He was also formerly executive vice president of the National Savings Bank. The employees, friends of Capt. Stevens, collected the books and then sponsored a concert to defray shipping costs. Captain Stevens served in the last World War and for about 18 years was personnel manager at the Huyck plant. He was inducted into the army air forces early last summer when he was assigned to the advanced flying school at Blytheville.

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## Spencer Allen Joins Fox Paper Co.

CINCINNATI, Ohio, October 26, 1942—Spencer Allen, for the last nine years a general partner of the investment brokerage firm of Hill & Co., and prior to that a general partner of N. S. Hill & Co., is now associated with the Fox Paper Company, Lockland. This was announced last week by Harold W. Nichols, president. Mr. Allen has been associated with Mr. Nichols on the Waste Materials Committee of the Hamilton County Defense Council, of which Mr. Nichols is chairman.

# MISCELLANEOUS MARKETS

Office of the PAPER TRADE JOURNAL.
Wednesday, October 28, 1942

BLANC FIXE—Prices on blanc fixe are firm and unchanged and conform to prevailing market levels. The pulp is currently quoted at $40 per ton, in barrels, at works; the powder is currently quoted at $60 per ton, f.o.b., works. Demand reported moderate for the week.

BLEACHING POWDER — Quotations on bleaching powder are firm. Demand reported active for the week. Bleaching powder is currently quoted at $2.25 per 100 pounds, in drums, at works.

CASEIN—Prices on casein are unchanged for the current week. Standard domestic casein, 20-30 mesh, is currently quoted at 19½ cents per pound; 80-100 mesh, at 20 cents per pound. All prices in bags, car lots. Argentina casein, 20-30 mesh, at 7½ cents per pound, c.i.f., is nominal. No quotations on French casein.

CAUSTIC SODA—Quotations on caustic soda continue unchanged at prevailing market prices. Demand reported moderate. Solid caustic soda is currently quoted at $2.30 per 100 pounds; flake and ground at $2.75 per 100 pounds, in drums, car lots, at works.

CHINA CLAY—Prices on china clay are firm and conform to prevailing market levels. Demand reported moderate at this date. Domestic filler clay is currently quoted at from $7.50 to $15 per ton; coating clay at from $12 to $22 per ton, at mines. Imported clay is currently offered at from $13 to $25 per long ton, ship side.

CHLORINE—Quotations on chlorine are firm and unchanged. Market strong. Government demand is reported heavy during the current week. Chlorine is currently quoted at $1.75 per 100 pounds, in single-unit tank cars, f.o.b., works.

ROSIN — The rosin market is reported firm for the week with higher prices on some grades. "G" gum rosin is currently quoted at $3.55 per 100 pounds, in barrels. Savannah "F" wood rosin is currently quoted at $3.55 per 100 pounds, in barrels, New York. Seventy per cent gum rosin size is quoted at $3.75 per 100 pounds, f.o.b., works.

SALT CAKE—Prices on salt cake are firm. Demand fair for the current week. Domestic salt cake is currently quoted at $15 per ton, in bulk; chrome salt cake at $16 per ton. Restrictions on chrome cake removed. All prices in car lots, f.o.b., shipping point. The quotation of $16 per ton on imported salt cake is nominal.

SODA ASH — Quotations on soda ash are firm and continue to conform to prevailing market levels. Demand reported fair for the week. Prices on soda ash in car lots, per 100 pounds, are as follows: in bulk, $90; in paper bags, $1.05; and in barrels, $1.35.

STARCH — Prices on corn starch are reported unchanged for the current week. Pearl is currently quoted at $3.10 per 100 pounds; powdered starch at $3.20 per 100 pounds. All prices in bags, carlots, f.o.b., Chicago.

SULPHATE OF ALUMINA—Quotations on sulphate of alumina are firm. Demand reported light for the current week. The commercial grades are currently quoted at from $1.15 to $1.25; iron free at from $1.75 to $1.85 per 100 pounds. All prices in bags, car lots, f.o.b., works.

SULPHUR—Prices on sulphur are firm and conform to prevailing market levels. Annual contracts are currently quoted at $16 per long ton, f.o.b., mines. Spot and nearby car lots are quoted at $18 per ton.

TALC—Quotations on talc are firm and continue unchanged at prevailing market prices. Domestic talc is currently quoted at from $15 to $21 per ton, at mines. No quotations on imported talc.

# MARKET QUOTATIONS

All market quotations, excepting those otherwise designated as official OPA maximum prices, are based on the manufacturers' price level as of October 1-15, 1941; maximum wholesale prices are based on the merchants' maximum prices for stipulated quantities at a quoted price to all customers of a like class, as shown by the merchant's sales records of goods delivered during March, 1942. A merchant's price list in effect in March 1942, showing quotations of actual shipments, will establish the current maximum prices.

## Paper

(Delivered New York)

| | | | |
|---|---|---|---|
| News, per ton— | | | |
| Roll, contract | $50.00 | @ | — |
| Sheets | 58.00 | " | — |
| **Kraft—per cwt.—Carload Quantities Zone A, f.o.b. Mill** | | | |
| Super-standard Wrapping | $5.00 | @ | — |
| No. 1 Wrapping | 4.75 | " | — |
| Standard Wrapping | 4.50 | " | — |
| Standard Bag | 4.125 | " | — |
| **Tissues—Per Ream—Carlots** | | | |
| White No. 1 | 1.12½ | " | — |
| White No. 1 M. G. | 1.05 | " | — |
| White No. 1½ | 1.00 | " | — |
| White No. 2 | 1.00 | " | — |
| Anti-Tarnish M. G. | .95 | " | — |
| Colored | — | " | — |
| Kraft | .95 | " | — |
| Manila | .90 | " | — |
| Unbl. Toilet, 1 M. | 4.16 | " | — |
| Bleached Toilet | 5.70 | " | — |
| **Paper Towels. Per Case** | | | |
| Unbleached, Jr. | 2.35 | " | — |
| Bleached, Jr. | 2.65 | " | — |
| **Manila—per cwt.—C. i. f. a.** | | | |
| No. 1 Jute | 11.25 | @ | — |
| No. 1 Manila Wrapping, 35 lb. | 5.50 | " | 5.75 |
| No. 2 Manila Wrapping, 35 lb. | 5.25 | " | 5.50 |
| **Boards, per ton—** | | | |
| News | *48.00 | @ | — |
| Chip | *45.00 | " | — |
| Sgl. Mla. Lt. Chip | *60.00 | " | — |
| White Pat. Coated | *75.00 | " | — |
| Kraft Liners 50 lb. | *60.00 | " | — |
| Binders Boards | 84.00 | " | 116.00 |

* OPA Base Prices per 10 tons. Less than 10 tons but over 3 tons, add $2.50; three tons or less, add $5; regular 35-39 basis, add $5.; basis 40-49, add $2.50; basis 91-100, add $2.50; basis 101-120, add $5.

**The following are representative of distributors' resale prices:**

**Rag Content Bonds and Ledgers—White, Assorted Items, Delivered in Zone 1:**

| | Bonds | | Ledgers | |
|---|---|---|---|---|
| 100% Rag Est. No. 1 | $40.25 | @ $47.25 | $41.40 | @ $48.50 |
| 100% Rag | 32.20 | " 37.75 | 33.35 | " 39.25 |
| 85% Rag | .... | " .... | 32.20 | " 37.75 |
| 75% Rag | 24.75 | " 29.00 | 25.90 | " 30.50 |
| 65% Rag | .... | " .... | 22.80 | " 27.75 |
| 50% Rag | 18.70 | " 22.75 | 19.90 | " 24.25 |
| 25% Rag | 16.40 | " 20.00 | 17.55 | " 21.50 |

Colors at $1.00 cwt. extra.

**Sulphite Bonds and Ledgers—White, Assorted Items Delivered in Zone 1:**

| | Bonds | | Ledgers | |
|---|---|---|---|---|
| No. 1 | $10.55 | @ $12.75 | $11.70 | @ $14.25 |
| No. 2 | 9.65 | " 11.75 | 10.80 | " 13.25 |
| No. 3 | 9.20 | " 11.25 | 10.35 | " 12.50 |
| No. 4 | 8.90 | " 10.75 | 10.05 | " 12.25 |

Colors $1.00 cwt. extra.

**Free Sheet Book Papers—White, Coated Paper.**

Delivered in Zone 1.

| | | | |
|---|---|---|---|
| No. 1 Glossy Coated | $13.65 | @ | $15.50 |
| No. 2 Glossy Coated | 12.40 | " | 14.00 |
| No. 3 Glossy Coated | 11.60 | " | 13.25 |
| No. 4 Glossy Coated | 11.15 | " | 12.75 |
| No. 1 Antique (watermarked) | 10.25 | " | 11.75 |
| No. 2 Offset | 9.60 | " | 11.00 |
| A Grade E. F. | 9.35 | " | 10.75 |
| A Grade S. & S. C. | 9.60 | " | 11.00 |
| B Grade E. F. | 8.85 | " | 10.25 |
| B Grade S. & S. C. | 9.10 | " | 10.50 |
| C Grade E. F. | 8.55 | " | 9.75 |
| C Grade S. & S. C. | 8.80 | " | 10.00 |
| D Grade E. F. | 8.25 | " | 9.50 |
| D Grade S. & S. C. | 8.50 | " | 9.75 |

Ivory & India at $.50 cwt. extra.

## Wood Pulp

**OPA Maximum Prices and Canadian Manufacturers Prices, Less Freight to Destination.**

| | |
|---|---|
| Bl. Softwood Sulphite | $76.00 |
| Unbl. Softwood Sulphite | 64.00 @ 66.00 |
| Bl. Hardwood Sulphite | 73.50 |
| Unbl. Hardwood Sulphite | 63.50 |
| Bl. Mitscherlich | 81.00 |
| Unbl. Mitscherlich | 72.00 |
| N. Bleached Sulphate | 86.00 |
| S. Bleached Sulphate | 79.00 |
| N. Semi-Bleached Sulphate | 82.00 |
| S. Semi-Bleached Sulphate | 75.00 |
| N. Unbl. Sulphate | 73.00 |
| S. Unbl. Sulphate | 63.50 |
| Bl. Soda | 66.00 |
| Unbl. Soda | 62.00 |
| Groundwood | 46.00 |

**Transportation Allowances Applying to Producers of Wet Wood Pulp.**

| | Below 50% Air Dry Weight |
|---|---|
| Northeast | $13.50 |
| Lake Central | 13.50 |
| Southern | 16.00 |
| West Coast (in area) | 10.50 |
| West Coast (out area) | 16.50 |

| | 50%-80% Air Dry Weight |
|---|---|
| Northeast | $11.50 |
| Lake Central | 11.50 |
| Southern | 14.00 |
| West Coast (in area) | 9.50 |
| West Coast (out area) | 15.50 |

**Applying to Producers of Dry Wood Pulp.**

| | Above 80% Air Dry Weight |
|---|---|
| Northeast | $8.50 |
| Lake Central | 8.50 |
| Southern | 11.00 |
| West Coast (in area) | 7.50 |
| West Coast (out area) | 13.50 |

Should freight charges actually exceed these allowances, the difference may be added to the maximum price.

## Domestic Rags

**New Rags**

(Prices to Mill f. o. b. N. Y.)

| | | | |
|---|---|---|---|
| Shirt Cuttings— | | | |
| New White, No. 1. | 8.00 | @ | 8.25 |
| Silesias No. 1 | 4.50 | " | 4.75 |
| New Unbleached | 8.00 | " | 8.25 |
| Blue Overall | 5.75 | " | 6.00 |
| Fancy | 3.00 | " | 3.25 |
| Washables | 2.50 | " | 2.75 |
| Mixed Khaki Cuttings | 2.50 | " | 2.75 |
| O. D. Khaki Cuttings | 3.00 | " | 3.15 |

### Old Rags

| | | | |
|---|---|---|---|
| White, No. 1— | | | |
| Repacked | *3.80 | " | — |
| Miscellaneous | *3.20 | " | — |
| White, No. 2— | | | |
| Repacked | *2.90 | " | — |
| Miscellaneous | *2.65 | " | — |
| Third and Blues— | | | |
| Repacked | *2.20 | " | — |
| Miscellaneous | *1.80 | " | — |
| Roofing Rags— | | | |
| No. 1 | *1.55 | " | — |
| No. 2 | *1.45 | " | — |
| No. 3 (bagging) | *1.35 | " | — |
| No. 4 | *1.35 | " | — |
| No. 5A | *1.35 | " | — |
| Old Manila Rope | 5.75 | " | — |

-OPA Maximum Prices.

### Foreign Rags

All prices nominal

New Rags

| | | | |
|---|---|---|---|
| New Dark Cuttings | 2.25 | @ | 2.40 |
| New Mixed Cuttings | 2.00 | " | 2.20 |
| New Light Silesias | 5.50 | " | 5.75 |
| Light Flannelettes | 5.50 | " | 5.75 |
| New White Cuttings | 7.00 | " | 7.50 |
| New Light Oxfords | 4.00 | " | 4.50 |
| New Light Prints | 3.00 | " | 3.25 |

Old Rags

| | | | |
|---|---|---|---|
| No. 1 White Linens | 7.50 | " | 8.50 |
| No. 2 White Linens | 6.50 | " | 7.50 |
| No. 3 White Linens | 4.50 | " | — |
| No. 4 White Linens | 2.25 | " | 3.25 |
| No. 1 White Cotton | 4.25 | " | 4.75 |
| No. 2 White Cotton | 3.25 | " | 3.75 |
| No. 3 White Cotton | 2.50 | " | 3.00 |
| No. 4 White Cotton | 1.90 | " | 2.20 |
| Extra Light Prints | 2.00 | " | 2.40 |
| Ord. Light Prints | 1.75 | " | 2.15 |
| Med. Light Prints | 1.55 | " | 1.95 |
| Dutch Blue Cottons | 2.25 | " | 2.50 |
| French Blue Linens | 3.00 | " | — |
| Checks and Blues | 2.00 | " | — |
| Linsey Garments | 1.90 | " | 2.00 |
| Dark Cottons | 1.50 | " | 1.60 |
| Old Shopperies | 1.30 | " | 1.45 |
| New Shopperies | 1.45 | " | 1.50 |
| French Blues | 2.25 | " | 2.50 |

### BAGGING

(Prices to Mill, f. o. b. N. Y.)

| | | | |
|---|---|---|---|
| Gunny No. 1— | | | |
| Foreign | Nominal | | |
| Domestic | 4.00 | @ | 4.25 |
| Wool Tares, light | 4.25 | " | 4.50 |
| Wool Tares heavy | 4.50 | " | 4.75 |
| Bright Bagging | 4.50 | " | 4.85 |
| Manila Rope— | | | |
| Foreign | — | " | — |
| Domestic | *5.75 | " | — |
| Jute Threads | 4.25 | " | 4.75 |
| Sisal Strings | 3.25 | " | 3.75 |
| Mixed Strings | 1.10 | " | 1.20 |

* OPA Maximum Price.

### Old Waste Papers

(F. o. b. New York)

OPA Maximum Prices

| | | | |
|---|---|---|---|
| No. 1 Hard White Envelope Cuts, one cut | 3.37½ | @ | — |
| No. 1 Hard White Envelope Cuts | 3.12½ | " | — |
| No. 1 Hard White Shavings, unruled | 2.87½ | " | — |
| No. 1 Hard White Shavings, ruled | 2.50 | " | — |
| Soft White Shavings, one cut | 2.87½ | " | — |
| No. 1 Soft White Shavings | 2.50 | " | — |
| Soft White Shavings, Misc. | 2.15 | " | — |
| No. 1 Fly Leaf Shavings | 1.67½ | " | — |
| No. 2 Fly Leaf Shavings | 1.12½ | " | — |
| No. 1 Groundwood Fly Leaf Shavings | 1.25 | " | — |
| No. 2 Mixed Groundwood Fly Leaf Shavings | .90 | " | — |
| Mixed Colored Shavings | .75 | " | — |
| Mixed Groundwood Colored Shavings | .90 | " | — |
| Overissue Magazines | 1.67½ | " | — |
| No. 1 Heavy Books & Magazines | 1.57 | " | — |
| Mixed Books | 1.07½ | " | — |
| No. 1 White Ledger | 2.17½ | " | — |
| No. 2 Mixed Ledger, colored | 1.87½ | " | — |
| New Manila Envelope Cuttings, one cut | 2.87½ | " | — |
| New Manila Envelope Cuttings | 2.65 | " | — |
| Extra Manilas | 1.85 | " | — |
| Mixed Kraft, Env. & Bag Cuttings | 2.75 | " | — |
| Kraft Envelope Cuttings | 3.25 | " | — |
| Triple Sorted, No. 1 Brown Soft Kraft | 2.50 | " | — |
| New 100% Kraft Corrugated Cuttings | 2.25 | " | — |
| No. 1 Assorted Old Kraft | 1.75 | " | — |
| New Jute Corrugated Cuttings | 1.75 | " | — |
| Old Corrugated Containers | 1.00 | " | — |
| Box Board Cuttings | .72½ | " | — |
| White Blank News | 1.65 | " | — |
| Overissue News | .85 | " | — |
| No. 1 News | .75 | " | — |
| No. 1 Mixed Paper | .70 | " | — |

### Twines

(F. o. b. Mill)

(Soft Fiber)

| | | | |
|---|---|---|---|
| Coarse Polished— | | | |
| India | .21 | @ | — |
| White Hemp | .21 | " | — |
| Fine Polished— | | | |
| Fine India | .26 | " | — |
| Unpolished— | | | |
| Box | .17¾ | " | — |
| Paper Makers | .17 | " | — |
| Tube Rope | .19 | " | — |
| Wall Paper | .20½ | " | — |
| Wrapping | .23 | " | — |
| Soft Fiber Rope | .19 | " | — |
| Cotton | .25 | " | — |

(Hard Fiber)

| | | | |
|---|---|---|---|
| Medium Java | .18 | " | — |
| Mex. Sisal | .16 | " | — |
| Manila | — | " | — |

## PHILADELPHIA

### Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

| | | | |
|---|---|---|---|
| Shirt Cuttings— | | | |
| New White No. 1 | .07½ | @ | .07½ |
| New White No. 2 | .04½ | " | .05 |
| Light Silesias | .04½ | " | .04¾ |
| Silesias, No. 1 | .04 | " | .04¼ |
| Black Silesias, soft | .03¾ | " | .04 |
| New Unbleached | .07½ | " | .07½ |
| Washable Prints | .03¾ | " | .03½ |
| Washable No. 1 | .02 | " | .02¼ |
| Blue Overall | .04½ | " | .05½ |
| Cottons—According to grades— | | | |
| Washable shredding | — | " | .01¾ |
| Fancy Percales | .03¼ | " | .03½ |
| New Black Soft | .02¾ | " | .03 |
| New Dark Seconds | 1.75 | " | 2.00 |
| Khaki Cuttings— | | | |
| No 1 O. D. | .03 | " | .03¼ |
| No. 2 Mixed | .02½ | " | .02½ |
| Corduroy | .01¾ | " | .02¼ |
| New Canvas | .04¾ | " | .05¼ |
| New Black Mixed | — | " | .02½ |

### Domestic Rags (Old)

| | | | |
|---|---|---|---|
| White No. 1—Repacked | 3.80 | " | — |
| White No. 2—Repacked | 2.90 | " | — |
| Miscellaneous No. 1 | 3.20 | " | — |
| Miscellaneous No. 2 | 2.65 | " | — |
| Thirds and Blues— | | | |
| Miscellaneous | 1.80 | " | — |
| Repacked | 2.20 | " | — |
| Black Stockings— | | | |
| (Export) | Nominal | | |
| Roofing Stock— | | | |
| Foreign No. 1 | Nominal | | |
| Domestic No. 1 | 1.55 | " | — |
| Domestic No. 2 | 1.45 | " | — |
| Roofing Bagging | 1.35 | " | — |
| Old Manila Rope | 5.75 | " | — |

### Bagging

(F. o. b. Phila.)

| | | | |
|---|---|---|---|
| Gunny No. 1— | | | |
| Foreign | Nominal | | |
| Domestic | 3.00 | " | 3.50 |
| Sisal Rope | 3.75 | " | — |
| Mixed Rope | .75 | " | 1.00 |
| Scrap— | | | |
| No. 1 | 3.25 | " | 3.50 |
| No. 2 | 1.75 | " | 1.80 |
| Wool Tares, heavy | 4.00 | " | 4.25 |
| No. 1 New Light Burlap | 3.88 | " | 4.00 |
| New Burlap Cuttings | 3.75 | " | 4.00 |

### Old Papers

(F. o. b. Phila.)

OPA Maximum Prices

| | | | |
|---|---|---|---|
| No. 1 Hard White Envelope Cuts, one cut | 3.37½ | " | — |
| No. 1 Hard White Shavings, unruled | 2.50 | " | — |
| Soft White Shavings, one cut | 2.87½ | " | — |
| White Blank News | 1.65 | " | — |
| Soft White Shavings, Misc. | 2.15 | " | — |
| No. 1 White Ledger | 2.17½ | " | — |
| No. 2 Ledger, colored | 1.87½ | " | — |
| No. 1 Heavy Books & Magazines | 1.57 | " | — |
| Overissue Magazines | 1.67½ | " | — |
| New Manila Envelope Cuttings | 2.65 | " | — |
| No. 1 Assorted Old Kraft | 1.75 | " | — |
| No. 1 Mixed Paper | .70 | " | — |
| Box Board Cuttings | .72½ | " | — |
| Jute Corrugated Cuttings | .90 | " | — |
| Overissue News | .85 | " | — |
| No. 1 News | 1.00 | " | — |

## BOSTON

### Old Papers

(F. o. b. Boston)

OPA Maximum Prices

| | | | |
|---|---|---|---|
| No. 1 Hard White Shavings, unruled | 2.87½ | @ | — |
| No. 1 Hard White Shavings, ruled | 2.50 | " | — |
| Soft White Shavings, Misc. | 2.15 | " | — |
| No. 1 Fly Leaf Shavings | 1.67½ | " | — |
| No. 2 Fly Leaf Shavings | 1.12½ | " | — |
| No. 1 Groundwood Fly Leaf Shavings | 1.25 | " | — |
| No. 2 Groundwood Fly Leaf Shavings | .90 | " | — |
| Mixed Colored Shavings | .75 | " | — |
| New Manila Envelope Cuts, one cut | 2.87½ | " | — |
| Hard White Envelope Cuts, one cut | 3.37½ | " | — |
| Triple Sorted No. 1 Brown Soft Kraft | 2.50 | " | — |
| Mixed Kraft Env. & Bag Cuttings | 2.75 | " | — |
| Kraft Envelope Cuttings | 3.25 | " | — |
| No. 1 Heavy Books & Magazines | 1.57 | " | — |
| New Manila Envelope Cuts, one cut | 2.87½ | " | — |
| New Manila Envelope Cuttings | 2.65 | " | — |
| White Blank News | 1.65 | " | — |
| No. 1 Assorted Old Kraft | 1.75 | " | — |
| No. 1 Mixed Paper | .70 | " | — |
| Overissue News | .85 | " | — |
| Box Board Cuttings | .72½ | " | — |
| New Corrugated Cuttings, Kraft | 2.25 | " | — |
| Old Corrugated Containers | 1.00 | " | — |
| Jute Corrugated Cuttings | 1.07½ | " | — |

### Bagging

(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Gunny Bagging— | | | |
| Foreign | (nominal) | | |
| Domestic | 3.50 | @ | 4.00 |
| Sisal Rope | 4.50 | " | 4.75 |
| Mixed Rope | 1.35 | " | 1.50 |
| Transmission Rope— | | | |
| Foreign | (nominal) | | |
| Domestic | 3.00 | " | 3.50 |
| Manila Rope— | | | |
| Foreign | (nominal) | | |
| Domestic | 5.75 | " | — |
| Soft Jute Rope | 5.00 | " | 5.25 |
| Jute Carpet Threads | 3.00 | " | 3.50 |
| Bleachery Burlap | 8.50 | " | 9.00 |
| Scrap Burlap— | | | |
| Foreign | (nominal) | | |
| Domestic | 3.00 | " | 3.75 |
| Scrap Sisal | 4.50 | " | 4.75 |
| Scrap Sisal for Shredding | — | " | 4.00 |
| Wool Tares— | | | |
| Foreign | (nominal) | | |

### Boston

| | | | |
|---|---|---|---|
| Domestic | 5.00 | " | 5.75 |
| Aust. Wool Pouches | 5.10 | " | 5.25 |
| New Burlap Cuttings | 5.00 | " | 5.25 |
| Heavy Baling Bagging | 4.50 | " | 4.75 |
| Paper Mill Bagging | 2.75 | " | 3.25 |
| No. 2 Bagging | 1.35 | " | — |

* OPA Maximum Price.

### Domestic Rags (New)

(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Shirt Cuttings— | | | |
| New Light Prints | .04½ | @ | .04¾ |
| Fancy Percales | .04¼ | " | .04¾ |
| New White No. 1 | .06¼ | " | .06½ |
| New Light Flannelettes | .05¼ | " | .06 |
| Canton Flannels, Bleached | .06 | " | .06¼ |
| Underwear Cutters, Bleached | .06 | " | .06¼ |
| Unbleached | .05¾ | " | .06 |
| Silesias No. 1 | .06 | " | .06¼ |
| New Black [illegible] | | | |
| Soft Unbleached | .06½ | " | .06¾ |
| Blue Cheviots | .05½ | " | .06 |
| Fancy [illegible] | | | |
| Washable | .02¾ | " | |
| Khaki Cuttings | .02¾ | " | .03 |
| O. D. Khaki | .03½ | " | .03¾ |
| Corduroy | .03¼ | " | .03½ |
| New Canvas | .06½ | " | .07 |
| B. V. D. Cuttings | .06¾ | " | .06¾ |

### Domestic Rags (Old)

(F. o. b. Boston)

| | | | |
|---|---|---|---|
| White No. 1— | | | |
| Repacked | 3.80 | @ | — |
| Miscellaneous | 3.20 | " | — |
| White No. 2— | | | |
| Miscellaneous | 2.65 | " | — |
| Twos and Blues, Repacked | 2.20 | " | — |
| Old Blue Overalls | 2.25 | " | 2.50 |
| Thirds and Blues, Repacked | 2.20 | " | — |
| Miscellaneous | 1.80 | " | — |
| Black Stockings | 3.50 | " | 4.00 |
| Roofing Stock— | | | |
| No. 1 | 1.55 | " | — |
| No. 2 | 1.45 | " | — |
| No. 3 | 1.35 | " | — |
| No. 4 | 1.35 | " | — |
| No. 5, Quality A | 1.35 | " | — |
| Quality B | 1.20 | " | — |
| Quality C | .95 | " | — |
| Old Manila Rope | 5.75 | " | — |

* OPA Maximum Prices.

### Foreign Rags

(F. o. b. Boston)

| | |
|---|---|
| Canvas | (nominal) |
| Dark Cottons | (nominal) |
| Dutch Blues | (nominal) |
| New Checks and Blues | (nominal) |
| Old Fustians | (nominal) |
| Old Linsey Garments | (nominal) |
| New Silesias | (nominal) |

## CHICAGO

### Waste Paper

(F. o. b. Chicago)

OPA Maximum Prices.

| | | | |
|---|---|---|---|
| Shavings— | | | |
| No. 1 Hard White Envelope Cuts, one cut | 3.37½ | " | — |
| No. 1 Hard White Shavings, unruled | 2.50 | " | — |
| No. 1 Soft White Shavings | 2.50 | " | — |
| No. 1 White Ledger | 2.17½ | " | — |
| No. 1 Heavy Books & Magazines | 1.57 | " | — |
| White Blank News | 1.65 | " | — |
| Mixed Kraft Env. & Bag Cuttings | 2.75 | " | — |
| No. 1 Assorted Old Kraft | 1.75 | " | — |
| Overissue News | .85 | " | — |
| No. 1 News | .75 | " | — |
| No. 1 Mixed Paper | .70 | " | — |
| No. 1 Roofing Rags | 1.55 | " | — |
| No. 1 Roofing Bags | 1.45 | " | — |